



Town of Carbondale
511 Colorado Avenue
Carbondale, CO 81623

AGENDA
PLANNING & ZONING COMMISSION
THURSDAY, May 28, 2020
7:00 P.M. Virtual Meeting *

1. CALL TO ORDER
2. ROLL CALL
3. 7:00 p.m. – 7:05 p.m.
Minutes of the May 14, 2020 meeting.....Attachment A
4. 7:05 p.m. – 7:10 p.m.
Public Comment – Persons present not on the agenda
5. 7:10 p.m. – 8:20 p.m.
Virtual HEARING –Preliminary/Final Plat, Minor Site Plan Review.....Attachment B
Applicant: Builders FirstSource by Robert Schultz Consulting
Location: Carbondale Marketplace Subdivision Lot 5A
6. 8:20 p.m. – 8:25 p.m.
Staff Update
7. 8:25 p.m. – 8:30 p.m.
Commissioner Comments
8. 8:30 p.m. – ADJOURN

***Please note all times are approx.**

ATTENTION: Due to the continuing threat of the spread of the COVID-19 Virus, all regular Carbondale P & Z Meetings will be conducted virtually. If you have a comment concerning one or more of the Agenda items please email msikes@carbondaleco.net by 4:00 pm on May 28, 2020.

If you would like to comment during the meeting please email msikes@carbondaleco.net with your full name and address by 4:00 pm on May 28, 2020. You will receive instructions on joining the meeting on line prior to 7:00 p.m. Also, you may contact msikes@carbondaleco.net to get a phone number to listen to the meeting, however, you will be unable to make comments.

Upcoming P & Z Meetings:

- 6-11-20 – Carbondale Center Rezoning/Highway 133-Sopris Shopping Center
Mini-Storage Parking – Zone Text Amendment
Blue Lake Preschool
6-28-20 Thompson Park - Condominiumization

MINUTES
CARBONDALE PLANNING AND ZONING COMMISSION
Thursday May 14, 2020

Commissioners Present:

Michael Durant, Chair
Ken Harrington, Vice-Chair
Jay Engstrom
Marina Skiles
Nick Miscione
Erica Stahl Golden (2nd Alternate)

Staff Present:

Janet Buck, Planning Director
John Leybourne, Planner
Mary Sikes, Planning Assistant

Commissioners Absent:

Jeff Davlyn
Jade Wimberley
Nicholas DiFrank (1st Alternate)

Other Persons Present Virtually

Chris Beebe
Michael Wagener
Bill Howard
Renee Grossman
Blair Kralick

The meeting was called to order at 7:01 p.m. by Michael Durant.

March 12, 2020 Minutes:

Ken made a motion to approve the March 12, 2020 minutes. Jay seconded the motion and they were approved unanimously.

Public Comment – Persons Present Not on the Agenda

There were no persons present to speak on a non-agenda item.

Resolution 2, Series of 2020 – Minor Site Plan Review for ADU – 522 N. 8th Street

Ken made a motion to approve Resolution 2, Series of 2020, approving the Minor Site Plan Review/Special Use Permit at 522 N. 8th Street. Nick seconded the motion and it was approved unanimously.

Resolution 3, Series of 2020 – Extending Deadline to Record Plat For 1328 Barber Drive

Ken made a motion to approve Resolution 3, Series of 2020, Extending the deadline to record the plat for 1328 Barber Drive. Nick seconded the motion and it was approved unanimously.

VIRTUAL HEARING – Minor Site Plan and Special Use Permit

Location: 415 Sopris Avenue

Applicant: Chris Beebe

John said that this is an application for a Minor Site Plan Review and Special Use Permit. John stated that the applicant is proposing to construct a single-family residence with an attached accessory dwelling unit. He said that the Special Use Permit is required for an ADU in the Old Town Residential (OTR) district. He said that this is the last lot to be developed behind the old Fender house and the property to the west was also a Chris Beebe project with an ADU. He said both the neighbors to the east and the west sent letters of support, which were in your packet. He said that the neighbors to the east and west have ADU's making it ADU row.

John stated that an ADU is allowed to be up 10% of the total lot size up to a maximum of 650 square feet, the proposed ADU is 609 square feet so it meets that standard. He said that it also meets all the required setbacks. He said that it should be noted that it is closer to the Sopris side than the property to the west and the property to the east is a corner lot.

John said that 40% maximum impervious is allowed and that the plans indicate 32.8% of the lot will be impervious. He said that the proposed structure is indicated to be 24.5 feet in height with a maximum allowed of 25 feet, which matches the structure located to the west.

John said that the UDC requires 2.5 parking spaces for the main dwelling and 2 spaces for an ADU. He said that two spaces are provided in the garage with an additional three spaces to the side and in front of the garage for a total of 5 parking spaces. He said that all parking is accessed from the alley.

John said that the front of the structure has variations utilizing "stepping" of the walls and roof and the front door is offset from the street located on a stepped back porch. He stated that there is a variation in materials on the exterior of the structure that include cedar siding, stone veneer and stucco.

John noted that there was a previous submittal that Staff felt didn't meet the code, so it was sent back to the applicant for revision, which is what you are seeing tonight.

Ken stated that the lot size is not mentioned in the Staff report but that this application does meet the requirements.

Chris Beebe introduced himself as the architect and that the owner is Michael Wagener. He said that affordability is getting tough for both owners and renters. He explained the design and that it is differentiating from other homes, which he referenced.

Ken said that the home to the west is attractive, which Chris also designed.

Jay said that it looks like there is a curb cut on the Sopris Avenue side.

Chris explained that is where the current Fender garage is located, which will be removed, and we will be using pervious pavers for parking in the same location. Marina asked if the landscaping is part of this application as it was with the neighbor to the west.

Chris explained the landscape design.

Bill Howard, **442 Euclid Avenue** said that he lives across the alley and that he was new to the area. He said that he doesn't have a problem with the application but that he would appreciate a visually pleasing view of the garage side facing the alley.

Further discussion ensued regarding garage door design options.

Motion to close the comment portion of the public hearing

Ken made the motion to close the comment portion of the public hearing. Marina seconded the motion and it was approved unanimously.

Commissioner Comments

- It is an infill project in the right spot.
- Open rail on the upper deck facing the alley vs. closed rail on the Sopris Avenue side.
- The original design with a breezeway would have made it less massive.
- Consider an amendment to the UDC allowing a detached ADU if it is not a historical property.
- Garage symmetry is off.

Motion

Nick made a motion to approve the Minor Site Plan Review for an Accessory Dwelling Unit to be located at 415 Sopris Avenue, with the findings and conditions indicated. Jay seconded the motion and it was approved unanimously.

VIRTUAL HEARING – Special Use Permit – Marijuana Infused Products/Retail & Medical

Location: 500 Buggy Circle

Applicant: Plum Manufacturing LLC

John said that Plum Manufacturing LLC has submitted an application to operate a MIP in the same location as a former MIP was operating in, He said that the reason they are coming before you was the original Special Use Permit that runs with the property was for carbon dioxide extraction. He said that Plum Manufacturing is planning to do an ice water bath extraction, which we fully support. He said that nothing is really changing on the site itself and the parking is the same. He said that the only things changing is the extraction process, the ownership and lease of the same units at 500 Buggy Circle.

John said that their application is pretty straight forward and that the Board of Trustees already approved their license conditionally and once the Special Use Permit is approved that they are free to go ahead with their operations.

John said that a building permit might need to be pulled and the Police Department might need to do their inspection.

Michael asked if the conditions 1-9 are the same as the previous SUP.

John said that they are the same.

John said as a side note that there were numerous odor issues on Buggy Circle previously and he said the original MIP in this location was thought to be one of the culprits. He said that after numerous upgrades to this building with the filtering as well as blower door testing that it was discovered that it was the grow operation across the street causing the odors.

Further discussion ensued on odor causing issues.

Jay said that in the application they are applying for a retail MIP operation and asked if the company previously was doing retail in this location.

John said that they are proposing to do both retail and medical and that Black Dog, which was there previously, was only doing retail MIP's.

Jay said so this will be their store front.

John said that there is no store front and that this is strictly for manufacturing.

Michael added clarification of the application.

Renee Grossman introduced herself and said that Blair Kralick, her colleague would be joining as well. She said that she owns High Q a retail marijuana store here in Carbondale, which we have been operating since early in 2018. She said that it is confusing when the State refers to retail, which means recreational and that it doesn't mean retail. She said that it was just the wording that they developed. She said that we are very excited to be taking over this facility in Carbondale. She said that we will be doing solvent-less extraction process. She said that it is a fresh plant that is frozen and that we do not thaw it out and process in a dry material, so it has a lot less potential for odor issues. She said that at the High Q store in Carbondale that we have never had an odor complaint. She said that we operate three stores in the Roaring Fork Valley and that we are opening our fourth. She said they have never had an odor complaint at any of their locations. She said that we try to conduct ourselves in a very professional manner and we try to be a great neighbor.

Blair Kralick said that he is the Director of Operations for Plum Manufacturing and that he has a background in the cannabis market. He said that he has come from the Front

Range and that he is new to Carbondale and that he loves the town. He explained their process of water-based extraction. He said that the pros to this are that they use fresh frozen material, which reduces the odor. He said that in this location we have strong CFM filters on both sides of the building, which reduce the odor to non-existent. He showed slides of their products and steps to make ice water hash and live rosin.

Marina said that it was fascinating.

There were no members of the public present virtually to comment.

Motion to close the comment portion of the public hearing

Ken made the motion to close the comment portion of the public hearing. Marina seconded the motion and it was approved unanimously.

Marina noted that when we approved the first MIP it was a big deal.

Motion

Jay made a motion to approve a Special Use Permit for the operation of a retail and medical marijuana infused product manufacturing operation to be located at 500 Buggy Circle, units LL4, LL3, UL2 and UL3. Marina seconded the motion and it was approved unanimously.

Staff Update

Janet said that the Planning Department has been really busy.

Janet said that the building permit for 1201 Main Street is in process and that they are hoping to break ground in June.

Janet said that Main Street Marketplace will be submitting for a building permit for the two apartment buildings closest to City Market soon.

Janet said that next week's meeting will be for a Special Use Permit for a day care and then significant applications for both Lot 5 of the Carbondale Marketplace property and a rezoning of the Sopris Shopping Center.

Janet said that we are trying to make up for lost time with the meetings that were canceled due to the virus.

John said that the Town requested HUD funds on behalf of Red Hill Lofts for their credit vouchers, which is currently in the review process.

John said that inquires have been insane and that everyone wants to know what they can do how and what.

Nick asked when Red Hill Lofts plans on breaking ground.

John said that they have not submitted their building permit yet and that they were waiting on the vouchers, which is a shoo-in for their funding. He said that they have met with the current Ballentine building owners and tenants regarding parking.

Janet said that tonight was the first virtual hearing and that next week there will be a lot of members of the public. She asked if the Commission wanted to do hand-raising on Zoom. There was more conversation about the process on Zoom and that the public would need to do hand-raising but that the Commission could navigate and speak without hand-raising.

Michael said City Market was really making progress.

Mary said that homeowners are busy doing projects and that there has been more fence and deck permit applications in the last three weeks than there has been in the last three years. She said that everyone is home and that even though these are challenging times they are getting their projects done.

Commissioner Comments

There were no comments.

Motion to Adjourn

A motion was made by Jay to adjourn. Nick seconded the motion and the meeting was adjourned at 8:06 p.m.



**TOWN OF CARBONDALE
511 COLORADO AVENUE
CARBONDALE, CO 81623**

Planning and Zoning Commission Agenda Memorandum

Meeting Date: 5-28-2020

TITLE: Carbondale Lumberyard Project

SUBMITTING DEPARTMENT: Planning Department

OWNER: Crystal River Marketplace, LLC (CRMP, LLC)

APPLICANT: Builders FirstSource by Bob Schultz Consulting LLC

LOCATION: West of Highway 133, north of Nieslanik extended
and west of Parker Drive

ZONING: Commercial/Retail/Wholesale (CRW)

ATTACHMENTS: Agency and Town Referral Comments
Public Works/Utilities/Engineering
Fire District
CDOT
Building Official
Land Use Application

BACKGROUND

This is an application for the following items:

1. A Preliminary Plat and a Final Plat to subdivide Lot 5A of the Carbondale Marketplace Subdivision into two lots: Lot 5A Amended and Lot 5C.
2. A Minor Site Plan Review to allow construction of a 29,240 sq. ft. building on Lot 5A Amended which is comprised of three components: a 3,240 sq. ft. showroom for building materials, a 9,000 sq. ft. office/retail building, a 17,000 sq. ft. warehouse.
3. Request for Alternative Compliance related landscaping/screening, fence height and commercial building design.

The Planning Commission is required to hold a public hearing and 1) approve or deny the application for a Preliminary Plat; and 2) recommend approval or denial of the Minor Site Plan Review and requests for Alternative Compliance.

PROJECT DESCRIPTION

Builders FirstSource (BFS) currently has lumber facilities in Aspen and Glenwood Springs. There is also a showroom in Basalt. They are planning to consolidate the facilities on proposed Lot 5A Amended.

The proposed building is 29,240 sq. ft. Under the Unified Development Code (UDC), this is classified as a Minor Site Plan Review because the structure is between 10,001 – 30,000 sq. ft. A Minor Site Plan Review application can be referred to the Board of Trustees by Planning and Zoning Commission. Because the Board is the approving authority for the Final Plat and because this building is so close to the Major Site Plan Review threshold of 30,000 sq. ft., Staff recommends that the Planning Commission refer the complete proposal forward to the Board with a recommendation.

COMPREHENSIVE PLAN

The Future Land Use Map in the Comprehensive Plan designates this area as “New Urban.” This designation balances an urban, pedestrian/bike friendly feel with the need to accommodate automobile access and parking on-site. Buildings should be the focal point of the site by locating them close to the sidewalks or pathways along the street, parking should be behind the buildings or located in less visible, well screened lots to the side of the building. Commercial, mixed-use, light industrial, local food production, live/work, and urban residential uses are all allowed in appropriate places.

ZONE DISTRICT

The property is zoned Commercial/Retail/Wholesale. The purpose of this code section is as follows:

The purpose of the Commercial/Retail/Wholesale district is to allow and encourage a mix of retail, restaurants, service commercial, lodging, offices and other uses aimed at attracting and accommodating customers on-site, including medium and larger retail, wholesale, and service uses that typically do not benefit from clustering with other retail uses. Uses in the CRW district require good vehicular access. The intent is to locate uses adjacent to major arterial streets, to create attractive commercial development with adequate access to arterial streets and sufficient parking areas, and to buffer the impact of these uses from residential areas.

DISCUSSION

This report will first cover the Preliminary/Final Plat application to create Lot 5A Amended and Lot 5C. The second portion of the report will discuss the Minor Site Plan proposal for the newly created Lot 5A Amended.

PRELIMINARY/FINAL PLAT

In 2018, the Carbondale Marketplace Subdivision Plat was recorded. This plat split the 23.182 acre Crystal River Marketplace (CRMP) site into five lots, one of which was Lot 5. A second subdivision plat was recorded in 2018 which split Lot 5 into two lots: 5A and 5B. 1st Bank was constructed on Lot 5B and Lot 5A was reserved for future development.

Lot 5A is 6.006 acres or 261,617 sq. ft. The current proposal is to subdivide the lot into the following:

Lot 5A Amended – 4.194 acres or 182,679 sq. ft.

Lot 5C – 1.238 acres or 53,921 sq. ft.

Industry Place right-of-way dedication - .228 acres or 9,947 sq. ft.

Trail Tract dedication - .346 acres or 15,069 sq. ft.

The Carbondale Marketplace Subdivision plat dedicated right-of-way to the Town to allow construction of a future roundabout at the intersection of Highway 133 and Industry Place. This new subdivision plat dedicates additional Industry Place right-of-way which extends to Parker Drive and the boundary of Lot 5A Amended.

The Trail Tract is intended to be dedicated to the Town as a public bicycle and pedestrian trail.

The street right-of-way dedication and the Trail Tract are not required to comply with lot size and dimensional requirements.

The plat shows a 30 ft. wide utility easement extending from the northern boundary of Industry Place to the northern edge of the plat. The Public Works Director has suggested easement be replaced with a 50 ft. wide public street dedication. This would extend Parker Drive to the northern boundary of the CRMP, LLC property and allow access to Lot 5C.

Lots 5A Amended and Lot 5C meet the minimum lot size of 15,000 sq. ft. as well as the required minimum lot width of 100 ft. as well as the lot depth of 100 ft.

Utilities/Stormwater

Utilities are available to the site. A water main under Parker Drive will provide water, and the sewer would be extended from the main which exists north of Parker Drive. The Public Works Director and Utilities Department have indicated the utility plans are acceptable.

In general, the storm water management strategies used in the design are appropriate. Ponds and other drainage infrastructure should be located in such a manner, within the easement, that Parker Drive could be extended straight north (onto CRMS property) without having to relocate it or having to curve a future road extension around it.

The Drainage Report indicates that final drainage calculations and details will be provided for the building permit submittal. The final calculations should be provided prior to SIA approval.

Drainage infrastructure for Lot 5C (particularly the pipe running from the lot to the drywell) should be constructed in such a manner as if it were under a road within the extents of Parker Drive extended straight north to eliminate having to redo the pipe if Parker Drive were to be extended north in the future.

Irrigation/Water Rights

When the improvements for the Carbondale Marketplace Subdivision Plat were done, the Rockford Ditch was relocated and an overall irrigation system for Lots 1 through 5 was planned. In this case, irrigation stubs to serve Lot 5A Amended are located at the southwest corner of the lot.

The Engineering Report discusses Rockford Ditch Share Allocation. However, this property was previously included in the calculation for the number of shares dedicated to the Town by CRMS. Therefore, no additional dedication would be necessary based on the proposed development plan.

During Carbondale Marketplace Subdivision process, an agreement between Lots 1-5 governing items such as water, irrigation, cross access, etc. was recorded. This agreement will continue to apply to the newly created Lot 5A Amended and Lot 5C, particularly as it relates to the irrigation system.

Traffic Study

Kimley-Horn prepared a traffic study for Lot 5A Amended and Lot 5C. The study found that the traffic will increase by 20% or more, triggering the need for an Access Permit from CDOT. An application has already been submitted to them for their review.

Delivery trucks will use Shorty Pabst Way to enter and exit the site. There will be 4-5 semi-trucks per day. The Public Works Director has requested a condition of approval

that if and when a roundabout is created at Industry and Highway 133, that all truck traffic be required to use Industry Place to enter and exit the site.

Fee-in-Lieu of Highway Improvements

During the Carbondale Marketplace Subdivision process, an agreement was reached between CRMP, LLC and the Town that a fee-in-lieu of highway improvements in the amount of \$200,000 was required in order to provide funds for the future roundabout improvements at Industry Place.

Fees-in-lieu of highway improvements were required of the 1st Bank development as well as the development proposed for Lot 1 (Main Street Marketplace).

A proportionate fee-in-lieu of highway improvements for Builders FirstSource will need to be established during the Board of Trustees review. This fee would be used for Nieslanik/SH-133, Industry Place/SH-133, Shorty Pabst/Main, Hendrick/Main, and Main/SH-133.

Fire District Fees

The development will be subject to development impact fees. The developer will be required to enter into an agreement with the Fire District and payment of fees are due prior to recordation of the plat.

There are public improvements associated with this subdivision plat. If the Board approves the Final Subdivision Plat, a Subdivision Improvements Agreement will be required.

Subdivision Plat

Generally, the plat looks acceptable with the following changes:

1. The plat should be revised to add a note that Lot 5C is “reserved for future development.”
2. The hatching of the different types of easements on the plat will be very hard to discern on any future copies. Consider another way to depict the different types of easements rather than the hatching scheme on the submitted plat.
3. Replace the utility easement with a 50 ft. public street dedication

SITE PLAN REVIEW – LOT 5A AMENDED

This portion of the report goes through the zoning parameters and development standards for the Minor Site Plan Review application proposed on Lot 5A Amended.

Setbacks

The code requires the following setbacks:

	Required	Proposed
Front (S)	5 ft.	5 ft.
Front (E)	5 ft.	5 ft.
Side (W)	20 ft.	131.8' ft.
Rear	20 ft.	20 ft.

The setbacks have been met.

Lot Coverage

The required landscaped area is 20%, or 36,536 sq. ft. The proposed landscape area is 24,443 sq. ft. which is a deficit of 12,093 sq. ft.

A request for Alternative Compliance is included in the application which addresses the landscape requirement. As an alternative to providing the 20% landscape area, the applicant proposes to subdivide a 15,069 sq. ft. strip of land from the west and north sides of Lot 5A Amended. This strip of land would be dedicated to the Town as a 12 ft. wide public bicycle/pedestrian trail. In addition, a 1,390 sq. ft. landscape easement would be placed on Lot 5C adjacent to the trail to ensure that the trail remains attractive near Highway 133.

This trail would allow pedestrians and bicyclists to travel from Main Street along Shorty Pabst Way to this proposed trail and then connect to the Highway 133 trail.

Staff feels that the proposal results in benefits to the community that exceed benefits associated with the standard.

Building Height

The allowed height for a principal building is 35 ft. The proposed height of the main building to the highest point of the roof is 34 ft.

Accessory buildings may be 25 ft. to the mid-span of a pitched roof with an additional 5 ft. allowed to the peak of the roof. The highest point of the shed is 27 ft.

Both buildings are in compliance.

Private Common Open Space

Section 5.3.3. requires 15% of private common open space or 27,401 sq. ft.

The required landscape area can count toward this requirement. In addition, trails can be counted toward common open space. Staff would suggest that this requirement has been met as follows:

24,443 sq. ft. pervious surface

15,069 sq. ft. Trail Tract

39,512 sq. ft. total

Streetscape Landscape (Section 5.4.3.)

The UDC requires a 5 ft. wide landscape strip along street frontages. This has been met as follows:

12-15 ft. along Parker Drive

12 ft. along Nieslanik Avenue

Sixteen trees would be planted along Parker Drive. There are already eight trees along Nieslanik. These were planted as part of the Carbondale Marketplace improvements.

All trees are 2.5" caliper and the bushes are in 5 gallons containers, so these are in compliance with the UDC.

The Town Arborist was consulted during the development of the landscaping plans. A final review of the plan will be necessary prior to construction.

Parking Lot Landscape (Section 5.4.3.C.)

The code requires one island for every 12 parking spaces. No islands are required as the longest row of parking is 7 spaces. There are landscaped areas at the end of the rows of parking which more than meet the size requirements of 6 ft. wide and 75 sq. ft.

One tree for every twelve parking spaces is required or in this case, four trees. Ten trees have been provided.

Screening (Section 5.4.5.)

5.4.5.B.1. - No rooftop equipment is shown; however, this should be checked at the time of building permit to ensure that any mechanical equipment is adequately screened.

5.4.5.B.2 - Waste and recycling areas must be enclosed by a 6 ft. high solid wood fence or masonry wall. The dumpster must be at least 20 ft. from any public street.

5.4.5.C – The intent of screening materials is as follows:

“Screening walls, fences, or structures shall be constructed from durable materials suited to Carbondale’s climate and that will require low maintenance. All screening devices shall be constructed of materials and in a manner that creates a completely opaque screen through which it is not possible to see any portion or silhouette of the items being screened.”

This is an important code section for this proposal since a storage yard is associated with the development.

The applicant has demonstrated creativity to ensure that the racks holding the lumber are screened. The grade of the site generally sits lower than the elevation of the roads that border the site on the south and east. The grade drops significantly toward the west. Rather than raising the site, the applicants are using the lower grade to help with the screen the racks that hold the lumber.

The best plan sheets to review to understand the proposal are Sheets L1.0, L.20 and L2.1.

This is a summary of the proposals:

Along the north and west property lines, an 8 ft. high chain link fence with privacy mesh is located on top of a 3’ 7.5” retaining wall.

The top of the fence	6164.3
Asphalt surface of storage yard	6152.68

Screening height	11.62 ft.
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The shed screens the storage area along the east side of the property. The height of the shed ranges from 19 ft. to 27 ft. in height.

On the north side and south side of the shed on the east property line, there is an 8 ft. tall wood fence on top of a 3’ 5.5” concrete retaining wall.

The top of the fence	6164.06
Asphalt surface of storage yard	6153.06

Screening height	11.44 ft.
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Horizontal cedar slats are used for the wooden fence. The mesh used on the chain link fence is black with a 95-96% shade factor. Lighter colors are less opaque.

The combined height of the fence on top of the retaining walls bring us to the second request for Alternative compliance. The UDC restricts fence heights to 8 ft. The proposed fences exceed the allowed height. The combined height will only be visible from within the storage yard. From the outside, only the wood fence and mesh fences

will be visible as the retaining walls are below the grade of the property surrounding the storage yard.

The application notes that the materials are often stored up to 12 ft. above the ground and for short periods of time up to 16 ft. above ground. So, there are times when the racks will be visible.

Staff supports this request for Alternative Compliance.

Pedestrian Circulation (Section 5.5.3.)

The UDC requires a sidewalk on both sides of the street. A sidewalk is proposed along both Parker Drive and Nieslanik. There is a pedestrian connection from Nieslanik to the entrance of the business.

As noted previously a 12 ft. wide trail is proposed on the west side of the property which extends from Nieslanik to the north property line which then turns east and extends along the north property lines of Lot 5A Amended and Lot C to Highway 133.

General Building Design (Section 5.7.4.)

The building varies in size and shape as suggested by this code section. Façade modulation has been used to reduce the bulk of the building. The roof lines are broken up and interesting.

The design of the building recognizes the importance of the street corner of Parker and Nieslanik with a unique building façade using wood and windows designed to take advantage of the Sopris view.

The architectural character complements the architectural character of adjacent existing buildings, in this case, the backdrop of the CRMS buildings.

Properties with Frontage along Highway 133 (Section 5.7.5.)

Lot 5A Amended has a leg which extends to Highway 133 to accommodate the Trail Tract. The highway frontage is 20 ft. While Staff would suggest that these standards would not apply to this property, it appears that the proposal is in compliance regardless.

Buildings of 10,000 sq. ft. or greater (Section 5.7.6.)

This section states buildings shall be designed to reduce mass by dividing facades into a series of smaller components. This has been achieved.

This section requires that roof forms be highly visible. There are variations in the roofline and dormers have been included in the design.

The design standards state no individual component shall have a length of more than 60 feet, measured horizontally. It suggests variations in roof form or variations in roof height of two feet or more or changes in wall plane of 12 inches or more.

It goes on to suggest that there be a clearly identifiable base, body and top with horizontal elemental separate these components.

The three sections of the shed are each 66' 8" long rather than the 60 ft. prescribed in the UDC. However, the roof line and materials provide variation in the building.

The length of the wall of the warehouse structure are not in strict compliance as it needs to function as a warehouse. The east and west facades are 100 ft. in length and the north facade is 170 ft.

However, the west elevation is broken up by changes in materials, a distinctive sloping roof, barnwood doors and the use of the large Creative District logo. The east façade employs similar techniques.

The UDC requires that at least 30% of the ground floor and 20% of the upper floors shall consist of transparent glazing. While the structure does not strictly meet the required percentage of transparency, the south side adjacent to Nieslanik includes extensive glazing. The east side facing Parker Drive also provides a variety of interesting window treatments.

Because of the deviation from the building design standards, specifically components longer than 60 ft. and the required transparency, the application includes a request for Alternative Compliance. Staff supports the request.

Overall, Staff feels that the building is well-designed, interesting and complies with the intent of the Commercial Design Standards.

Parking (Section 5.8.)

The UDC requires 41 parking spaces. Forty-four (44) parking spaces have been provided plus two for ADA.

Parking spaces are required to be 8-1/2 ft. x 18 ft. The proposed spaces are 10 ft. x 18 ft. The aisle width is required to be 23 ft. The site plan shows a 24 ft. wide aisle.

The proposed parking exceeds the code requirements, which is commendable for this type of use.

The UDC requires one bike parking space for each three parking spaces, or 14 spaces in this case. Six bike parking spaces are proposed near the entry. While Staff would

prefer that the letter of the code be met, it does not seem this type of use would generate much bike traffic.

Section 5.8.7.C. states that buildings greater than 1,000 sq. ft. are required to provide an on-site changing room and shower facilities. The application indicates these facilities will be provided.

PROCESS AND CRITERIA

Preliminary Plat

The Planning Commission is the approving authority for a Preliminary Plat. The criteria for approval for a Preliminary Plat are in Section 2.6.4.C.2.b. and is as follows:

1. The proposed subdivision complies with all applicable use, density, development, and design standards set forth in this Code that have not otherwise been modified or waived pursuant to this chapter and that would affect or influence the layout of lots, blocks, and streets. Applicants shall avoid creating lots or patterns of lots in the subdivision that will make compliance with such development and design standards difficult or infeasible.
2. The general layout of lots, roads, driveways, utilities, drainage facilities, and other services within the proposed subdivision is designed in a way that minimizes the amount of land disturbance, maximizes the amount of open space in the development, preserves existing trees/vegetation and riparian areas, protects critical wildlife habitat, and otherwise accomplishes the purposes and intent of this Code.
3. The applicant has provided evidence that provision has been made to connect to the Town's public water supply system.
4. The applicant has provided evidence that provision has been made for a public sewage disposal system or, if other methods of sewage disposal are proposed, adequate evidence that such system shall comply with state and local laws and regulations.
5. The applicant has provided evidence to show that all areas of the proposed subdivision that may involve soil or topographical conditions presenting hazards or requiring special precautions have been identified by the subdivider and that the proposed use of these areas are compatible with such conditions.
6. The applicant has provided evidence to show that all areas of the proposed subdivision that may involve other natural hazards including flood and wildfire have been identified and mitigated to the maximum extent practicable.

7. The application provides a clear assumption of responsibility for maintaining all roads, open spaces, and other public and common facilities in the subdivision.
8. As applicable, the proposed phasing for development of the subdivision is rational in terms of available infrastructure capacity and financing.
9. The subdivision is consistent with the approved subdivision conceptual plan, if applicable, unless detailed engineering studies require specific changes based on site conditions (in which case the applicant shall not be required to pursue another conceptual plan approval);
10. The subdivision is consistent with Comprehensive Plan and other adopted Town policies and plans, including any adopted transportation plan or streets/roadway plan.

Final Plat

The Board of Trustees is the approving authority for a Final Plat. The criteria for that action is in Section 2.6.5.C.2.b.

Minor Site Plan Review

Staff would suggest that the Planning Commission refer the Minor Site Plan Review to the Board of Trustees with a recommendation. The approval criteria for Site Plan Review is in Section 2.5.3.C. and is as follows:

A Major Site Plan Review may be approved if the Town finds that all of the following approval criteria have been met:

1. The site plan is consistent with the Comprehensive Plan;
2. The site plan is consistent with any previously approved subdivision plat, planned unit development, or any other precedent plan or land use approval as applicable;
3. The site plan complies with all applicable development and design standards set forth in this Code; and
4. Traffic generated by the proposed development will be adequately served by existing streets within Carbondale, or the decision-making body finds that such traffic impacts will be sufficiently mitigated.

Alternative Compliance

Alternative compliance may be approved concurrently with the Minor Site Plan Review if the applicants demonstrate that the following criteria have been met by the proposed alternative:

1. Achieves the intent of the subject standard to a better degree than the subject standard;
2. Advances the goals and policies of the Comprehensive Plan and this Code to a better degree than the subject standard;
3. Results in benefits to the community that exceed benefits associated with the subject standard; and
4. Imposes no greater impacts on adjacent properties than would occur through compliance with the specific requirements of this ordinance.

FISCAL ANALYSIS

This proposal would have a positive fiscal impact on the Town.

RECOMMENDATION

Staff commends the applicant for their efforts in preparing a development proposal which is unique, interesting and in compliance with the UDC. In fact, in a number of areas, the proposal exceeds the requirements.

Staff recommends that the following motion be approved: **Approval the Preliminary Plat and recommendation for approval of the Minor Site Plan Review and requests for Alternative Compliance with the findings and conditions included in the Staff report.**

Conditions of Approval for Preliminary Subdivision Plat

1. All conditions of Ordinance No. 21, Series of 1997 recorded at Reception Number 521822 and recorded on March 13, 1998 remain in effect and in full force unless otherwise approved by the Board.
2. A Subdivision Improvement Agreement (SIA) shall be required prior to recordation of the Master Plat. The SIA shall guarantee and secure completion of the Infrastructure after recordation of the Plat. The SIA shall be subject to review and approval by the Town Attorney.
3. The final plat shall be revised to reflect the following:

- a. The plat should be revised to add a note that Lot 5C is “reserved for future development.”
 - b. Use a different method to depict the different types of easements.
 - c. Replace the utility easement with a 50 ft. public street dedication
4. The final plat shall be subject to review and approval by the Town Attorney.
5. The applicant shall submit final engineering and construction drawings for review and approval by the Town prior to recordation of the plat.
6. The final drainage calculations and details for the Drainage Report shall be submitted for Town review and approval prior to SIA approval.
7. The engineer’s estimate shall be revised to reflect all final public improvements, subject to Town review and approval, prior to recordation of the final plat.
8. The developer shall be responsible for the construction and cost of all infrastructure improvement. The construction of the infrastructure shall be completed within two (2) years of the recordation of the Plat.
9. If a roundabout is constructed at the Industry and Highway 133 intersection, all truck traffic be required to use Industry Place to enter and exit the site.
10. The developer shall be required to submit a current title commitment for the road dedications for review and approval by the Town Attorney. This commitment shall be prepared at the expense of the developer. A final title policy must then be submitted to the Town insuring title to public streets in the amount of at least \$250,000. Contemporaneously with recordation of the final plat, the Developer shall convey title to all public streets by General Warranty Deed subject only to title exceptions approved by the Town Attorney as part of the title review process.
11. A fee-in-lieu of highway improvements shall be paid at the time of recordation of the subdivision plat. A final determination of fees shall be made by the Town Board.
12. All irrigation shall be from non-potable water sources supplied by the Rockford Ditch.

Conditions of Approval for Site Plan Review

1. Approval of the Minor Site Plan Review is contingent upon Town approval of a Subdivision Improvements Agreement which addresses construction of public improvements.

2. Approval of the Minor Site Plan Review is contingent upon Town approval of the engineering plans.
3. The applicant shall be responsible for the maintenance of the landscape and irrigation system located on the west and north sides of the property.
4. The rooftop equipment shall be screened in accordance with Section 5.4 of the UDC (Landscaping and Screening).
5. All lighting shall be in compliance with Section 5.10 of the UDC (Exterior Lighting). The lighting plan shall be subject to review and approval of Town Staff.
6. A "Knox" box shall be installed prior to issuance of a Certificate of Occupancy. The installation of the "Knox" box shall be subject to review and approval of the Fire District.
7. The applicant shall enter into an agreement with the Carbondale & Rural Fire Protection District that addresses payment of impact fees prior to the issuance of any building permits for this project.
8. All representations of the Applicant in written submittals to the Town or in public hearings concerning this project shall also be binding as conditions of approval.
9. The Applicant shall pay and reimburse the town for all other applicable professional and Staff fees pursuant to the Carbondale Municipal Code.
10. This approval does not include approval of the signage. A separate permit is required to be approved by Town Staff.

Findings - Preliminary Plat

1. The proposed subdivision complies with all applicable use, density, development, and design standards set forth in this Code.
2. The general layout of lots, roads, driveways, utilities, drainage facilities, and other services within the proposed subdivision is designed to minimize land disturbance and maximize the amount of open space in the development and accomplishes the purposes and intent of this Code. No critical wildlife, tree/vegetation or riparian areas are present on-site.
3. The applicant has provided evidence that provision has been made to connect to the Town's public water supply system.
4. The applicant has provided evidence that provision has been made for a public sewage disposal system.

5. The applicant has provided evidence to show that all areas of the proposed subdivision that may involve soil or topographical conditions presenting hazards or requiring special precautions have been identified and that the proposed use of these areas are compatible with such conditions.
6. There are no identified natural hazards including flood and wildfire present on the site.
7. The application provides a clear assumption of responsibility for maintaining all roads, open spaces, and other public and common facilities in the subdivision.
8. There is no phasing of development.
9. The subdivision is consistent with the subdivision conceptual plan as approved with the Carbondale Marketplace Subdivision.
10. The subdivision is consistent with Comprehensive Plan and other adopted Town policies and plans, including any adopted transportation plan or streets/roadway plan.

Findings - Site Plan Review

1. The site plan is consistent with the Comprehensive Plan as the intent of the New Urban designation is support commercial, mixed use and urban residential uses. There are mixed use buildings on Lot 1 which reflect new urban design. As one moves north, there is the City Market, gas station and 1st Bank, then shifting toward to larger commercial uses such as the lumberyard. In addition, one of the goals is to capture more local spending to augment town sales tax revenues. This development, in conjunction with City Market and the fueling station, will move the Town closer to that goal.
2. The site plan is consistent with the approved Carbondale Marketplace Subdivision Plat;
3. The site plan complies with all applicable development and design standards set forth in this Code; and
4. Traffic generated by the proposed development is adequately served by existing streets within Carbondale.
5. Access to the site is adequate for the proposed use, considering the width of adjacent streets and alleys, and safety.

Findings – Alternative Compliance

The three requests for Alternative Compliance meet the following criteria:

1. Achieves the intent of the subject standard to a better degree than the subject standard;
2. Advances the goals and policies of the Comprehensive Plan and this Code to a better degree than the subject standard;
3. Results in benefits to the community that exceed benefits associated with the subject standard; and
4. Imposes no greater impacts on adjacent properties than would occur through compliance with the specific requirements of this ordinance.

Prepared By: Janet Buck, Planning Director



TOWN OF CARBONDALE

PUBLIC WORKS

511 Colorado Avenue
Carbondale, CO 81623

Development Review Memorandum

SUBJECT PROPERTY/DEVELOPMENT: Builders FirstSource
LU 20-13-15

DATE: May 12, 2020

REVIEW COMMENTS:

Streets:

- In general, the proposed layout is consistent with and seems to work with the City Market development to the south.
- Staff recommends that a condition of approval be that all truck traffic be required to use Industry Place to enter and exit the site if/when a roundabout is constructed at the intersection of Industry Place/SH-133.
- Consideration should be given to requiring a traffic impact fee as part of this development that could be used for future improvements to the following intersections: Nieslanik/SH-133, Industry Place/SH-133, Shorty Pabst/Main, Hendrick/Main, and Main/SH-133.

Water:

- In general, the water service location and hydrant stub should be acceptable. As noted in the engineering report, details will need to be reviewed and approved prior to issuance of a building permit.

Sanitary Sewer:

- In general, the sewer service location should be acceptable. As noted in the engineering report, details will need to be reviewed and approved prior to issuance of a building permit.

Storm Water:

- In general, the storm water management strategies used in the design are appropriate.
- Ponds and other drainage infrastructure should be located in such a manner, within the easement, that Parker Drive could be extended straight north (onto CRMS property) without having to relocate it or having to curve a future road extension around it.
- The Drainage Report indicates that final drainage calculations and details will be provided for the building permit submittal. The final calculations should be provided prior to SIA approval.
- Drainage infrastructure for Lot 5C (particularly the pipe running from the lot to the drywell) should be constructed in such a manner as if it were under a road within the extents of Parker Drive extended straight north to eliminate having to redo the pipe if Parker Drive were to be extended north in the future.

Irrigation/Ditches:

- The Engineering Report for the project discusses Rockford Ditch Share Allocation. However, this property was included in the calculation for the number of shares dedicated to the Town by CRMS pursuant to the First Amendment to Carbondale-Colorado Rocky Mountain School, Inc. Water Dedication Agreement, 1989. Therefore, no additional dedication would be necessary based on the proposed development plan.

Landscaping/Planting:

- The Town Arborist was consulted during the development of the landscaping plan. At this time, there are no objections. However, a review of the final plan will be necessary prior to construction.

General/Other:

- The hatching of the different types of easements on the plat will be very hard to discern on any future copies. Consider another way to depict the different types of easements rather than the hatching scheme on the submitted plat.
- The plat shows a utility easement, 30 feet in width extending north from the northern boundary of Industry Place to the northern edge of the plat. As access to Lot 5C will need to be off of an extension of Parker Drive over this easement, consider replacing the utility easement with a public street dedication, 50 feet in width, to eliminate the need to vacate or plat over this easement in the future.
- More detail on the above-items will be necessary before final engineering approval, but the plan is generally acceptable.

TOWN OF CARBONDALE
PLANNING DEPARTMENT
REVIEWING AGENCY FORM

PLANNING ITEM #: LU20-13-15

DATE SENT: 4-18-20

COMMENTS DUE: 5-11-20

TO: _____

To assist the Town in its review of this project, your review and written comments are requested. Please notify the Planning Department if you will not be able to respond by the date listed above. Questions regarding this project should be directed to the Planning Department, 963-2733.

APPLICANT: Robert Schultz Consulting LLC for Builders FirstSource

OWNERS: Crystal River Marketplace LLC

LOCATION: Lot 5A, Carbondale Marketplace Subdivision

ZONE: Commercial/Retail/Wholesale

PROJECT DESCRIPTION: Major Site Plan and Alternative Compliance (Landscaping/Trail and Screening) to allow construction of a building with 12,400 sq.ft. of commercial space and a 17,000 sq.ft. warehouse. The application also includes a Preliminary/Final Plat to subdivide Lot 5A into four new parcels as follows:

1) Lot 5A – Lumberyard Site 2) Lot 5C – Vacant parcel adjacent to Highway 133

3) Public Trail Tract – (strip of land west and north of Lots 5A and 5C) 4) Industry Place public street. There will be public improvements required for this subdivision.

PLANNING STAFF CONTACT: Janet Buck

The following are conditions or comments I would offer regarding this item:

1. Water Supplies for Fire Protection: A 17,000 square foot warehouse is proposed plus additional office and retail space totaling 29,240 square feet. Storage occupancies in excess of 12,000 square feet require automatic fire sprinklers systems. The required fire flow for the sprinkled building is 1,200 gallons per minute. The existing water system is capable of providing adequate fire flows for the project. The proposed location and spacing of fire hydrants is acceptable.

2. Access: The proposed access for the development is adequate for emergency apparatus.

3. Impact Fees: The development is subject to development impact fees adopted by the District. The developer will be required to enter into an agreement with the District for the payment of development impact fees. Execution of the agreement and payment of the fees are due prior to the recording of the final plat. Fees are based upon the impact fees adopted by the District at the time the agreement is executed. The current fee for commercial development is \$730.00 per 1,900 square feet.

Date: May 9, 2020

Bill Gavette, Deputy Chief
Carbondale & Rural Fire Protection District
970-963-2491

Please return comments to both: jbuck@carbondaleco.net
msikes@carbondaleco.net

Planning Department
Town of Carbondale
511 Colorado Avenue
Carbondale, CO 81623

From: Killian - CDOT, Brian <brian.killian@state.co.us>
Sent: Monday, May 11, 2020 10:10 AM
To: Mary Sikes
Cc: Janet Buck; Kandis Aggen - CDOT
Subject: Re: Attached Comment Form DUE 5-11-20 & Link to Application - Builders FirstSource - Crystal River Marketplace, Lot 5A

Mary,

Thanks for the opportunity to review.

CDOT's comments are as follows:

1. We will need a traffic study and CDOT Access Permit for this development. They will need to closely coordinate with CDOT on all access locations.

Thanks,

Brian Killian
Region 3 Access Manager
Traffic & Safety



P 970-683-6284 | C 970-210-1101 | F 970-683-6290
222 S. 6th St, Room 100 Grand Junction, CO 81501
brian.killian@state.co.us | www.codot.gov | www.cotrip.org

On Tue, Apr 21, 2020 at 8:21 AM Roussin - CDOT, Daniel <daniel.roussin@state.co.us> wrote:

Mary - Please send your community development referrals to Brian Killian, the new R3 Access Manager. I recently accepted a new job at CDOT. Brian should be able to help you. I have copied him in this email.

thanks

Dan

Dan Roussin
Program Administrator
Access Management Unit
Division of Maintenance and Operations



P 303-757-9841 | C 970.216.3610 | F 303.757.9219
2829 W Howard Pl, Denver, CO 80204
daniel.roussin@state.co.us | www.codot.gov/ | www.cotrip.org

On Sat, Apr 18, 2020 at 6:34 PM Mary Sikes <msikes@carbondaleco.net> wrote:

Hi All,

Please see attached comment form DUE 5-11-20.

Here is the link to the application for Builders FirstSource/Crystal River Marketplace, Lot 5A;

<https://www.dropbox.com/sh/ro7y20l9p59unot/AACquu-69iQYRPYpJWK6-iDla?dl=0>

Please return form to both Janet Buck jbuck@carbondaleco.net and myself in pdf format.

Thank you,

Mary Sikes

Building & Planning Technician

Town of Carbondale

511 Colorado Avenue

Carbondale, CO 81623

(970) 510-1210

msikes@carbondaleco.net

Memorandum

To: Janet Buck, Planning Director

From: John Plano, Building Official

Date: 05/04/2020

**Re: Builder's FirstSource, Major Site Plan
LU20-13-15**

This review is a Site Plan Review for the Planning Department; a thorough review of the buildings will be performed at building permit submittal. At this point there is insufficient information for a through Building Department review.

The current building codes adopted by the Town are the 2009 International Code Group, the 2012 International Green Construction Code (IGCC) and the 2015 International Energy Conservation Code (IECC).

I am assuming this will be a fully sprinklered building. If it is not sprinklered then the exiting from the 2nd floor will need to be analyzed deeper. For example, one of the stairs would need to be enclosed if not in a fully sprinklered building, area of refuge, etc.

Light fixtures 7 and 8, shown on sheet A4.01, are questionable as to the shielding of the light source. The light source of the fixture is not to be visible from the property line or the right of way.

The exiting from the Show Room is a concern. There doesn't appear to be any swinging doors from the space.

Vestibules will be required at building entrances.

**Crystal River Marketplace LLC Lot 5A
Carbondale Lumberyard Project
Application for Subdivision & Major Site Review & Sign Permit**



Submitted to:
Town of Carbondale
511 Colorado Ave.
Carbondale, CO 81623

Prepared for:
Crystal River Marketplace, LLC
Builders FirstSource

Prepared by:
Robert Schultz Consulting•354 Fawn Dr. Carbondale, CO 81623•970-963-3670
Neo Studio Architecture•3560 Walnut St. #A Boulder, CO 80205•303-758-3800
Sopris Engineering•502 Main St. Carbondale, CO 81623•970-704-0311

Background

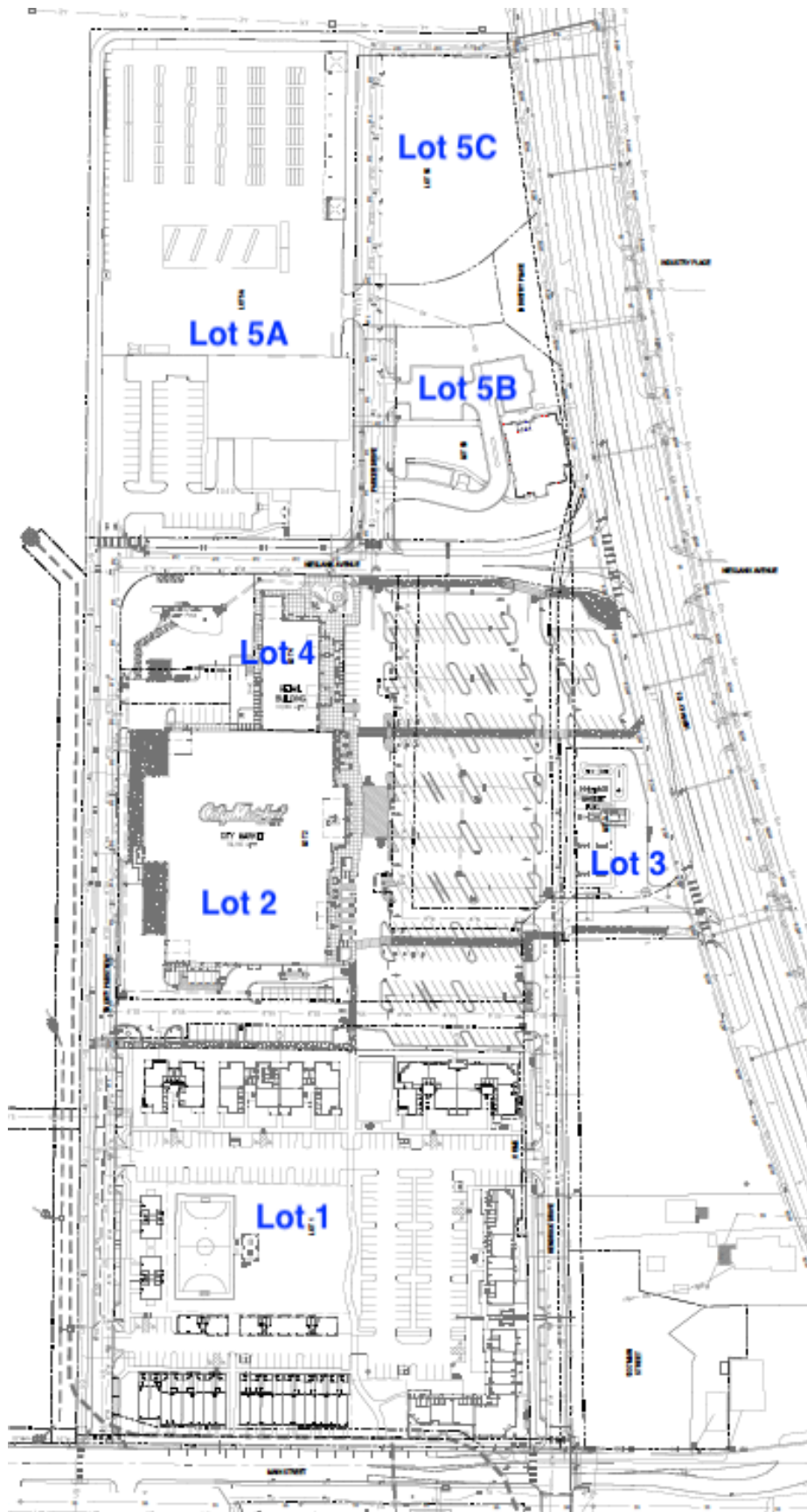
The larger Crystal River Marketplace property, of which Lot 5A is a portion, has been the object of a search for a common planning vision for over a decade. During that period there was not alignment around a master plan for the entire property but support for a new City Market and rental housing have been commonly envisioned. The Town's priority for the remainder of the property was to have a use that generated sales tax revenue without attracting a "big box" retailer.

In the absence of a master plan, the various subdivisions of the property have been subject to comprehensive utility and access planning by Town and landowner representatives to ensure that individual subdivisions work together.

A previous subdivision of Lot 5 was granted for the construction of 1st Bank on Lot 5B. The bank opened in 2019. A new City Market is expected to open in late 2020 and the first housing and mixed-use units on Lot One are expected to break ground in 2020.

The lot numbering in this application and previous approvals is:

- Lot 1 Mixed use project along Main St- housing and commercial
- Lot 2 City Market
- Lot 3 City Market Gas
- Lot 4 Commercial adjacent to north of City Market
- Lot 5A Lumberyard- Builders FirstSource (5A Amended)
- Lot 5B 1st Bank
- Lot 5C Future commercial (CRW)



Project Summary- Lumberyard & Reserved Parcel

Crystal River Development LLC is under contract to sell a portion of the current Lot 5A of the Carbondale Marketplace Subdivision to Builders FirstSource (“BFS”). The current Lot 5A is a 6.006-acre parcel on the northern end of the original site.

Builders FirstSource currently has lumber facilities in Aspen and Glenwood Springs plus a showroom in Basalt. BFS is planning to consolidate the locations into a 4.194-acre parcel on a new, smaller Lot 5A Amended. Lot 5B is home to the existing 1st Bank, it was the subject of a previous subdivision. The new Lot 5C, 1.238 acres, will remain with the current owner for future development. The land for the trail around the site is 0.3459 acres and 0.228 acres will be dedicated for Town right-of-way to connect Parker Dr. to SH 133 at Industry Place in the future.

While Builders FirstSource facilities are open to everyone, its primary customer base is contractors. Construction and contractors are a significant source of employment in Carbondale, second only to sales. About one of every six workers in Carbondale is in the construction industry according to the most recent Census estimate. The busiest time of the day for in-person visits is typically early morning as contractors gather their materials for the day’s labor. Large orders, the bulk of BFS business, are typically delivered by BFS to jobsites.

About one of
every six workers
in Carbondale is
in the
construction
industry

This property is zoned Commercial/Retail/Wholesale (CRW) and according to the UDC, “Uses in the CRW district require good vehicular access. The intent is to locate uses adjacent to major arterial streets, to create attractive commercial development with adequate access to arterial streets and sufficient parking areas, and to buffer the impact of these uses from residential areas”. Building Materials is a permitted use in the CRW zone District.

The Town’s Comprehensive Plan identifies Lot 5A as part of a large area prescribed as New Urban, further described as follows: “...This designation balances an urban, pedestrian/bike friendly feel with the need to accommodate automobile access and parking on-site. Buildings should be the focal point of the site by locating them close to the sidewalks or pathways along the street, while parking should be behind the buildings or located in less visible, well screened lots to the side of the buildings...”

The proposal will require:

- Preliminary and Final Subdivision of Lot 5A into two parcels (Lot 5A Amended and Lot 5C) and dedication of rights-of-way
- Major Site Plan Review for the lumberyard on Lot 5A Amended
- Subdivision Improvement Agreement for Lots 5A Amended and 5C

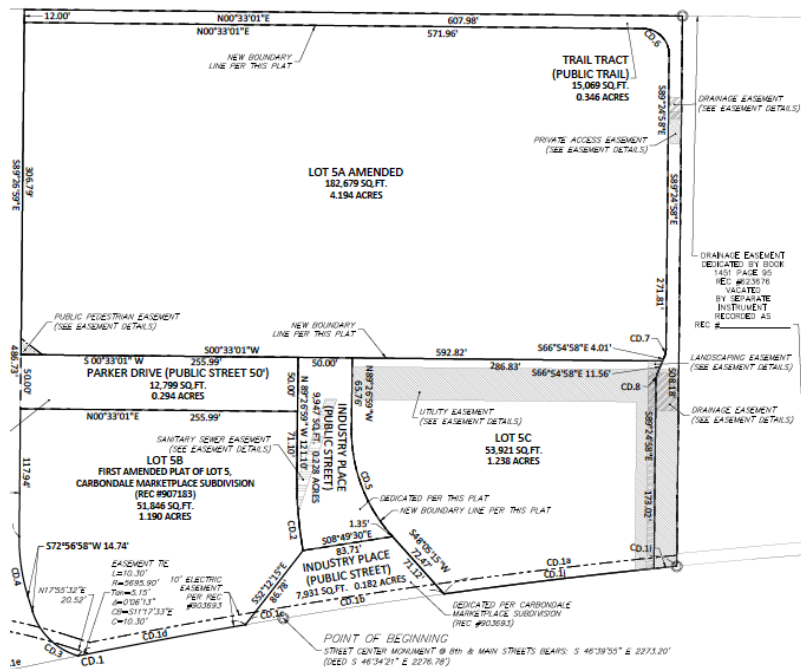
The application includes three Alternative Compliance proposals related to the unique characteristics of a lumberyard on this site. One to deal with a trail/landscape opportunity, one to deal with material storage and screening, and one to deal with selected commercial design guidelines.

The intention of this application is to demonstrate conformance with the four primary Site Review approval criteria required by the Town's Unified Development Code (UDC):

- Consistency with the Comprehensive Plan
- Consistency with previous approvals
- Compliance with design standards (which makes up the bulk of the application)
- Traffic generated by the development will be handled with existing roads or mitigated by the project

In addition, conformance with Subdivision standards will be documented.

Proposed Subdivision	Acres (6.006)
Lot 5A (BFS)	4.194
Lot 5C (Future)	1.238
ROW	0.228
Public Trail Land	0.346



Site Planning

The site will feature three primary structures with an architectural theme that plays off of a barn concept. This was inspired, in part, by the open space to the north of the site that preserves a view from SH 133 to the Bar Fork barn at CRMS. The attempt is to honor rather than copy that structure. Varied roof forms, dormers and changes to color/materials are employed to create interest and to reduce massing of the buildings.

The site will feature three primary structures with an architectural theme that plays off of a barn concept

There will be an approximately 3,240 sf, one-story showroom with a direct view of Mt. Sopris. This showroom will be used to display fixtures and other BFS custom products and will have the most modern style of the three buildings. The showroom will be set to anchor the corner of Parker Dr. and Nieslanik Ave. which will create a sense of a corner block that will blend with the surrounding commercial development in conformance with UDC and Comprehensive Plan intentions for the area.

There will be an approximately 6,000 sf footprint building for retail/office use with approximately 9,000 sf of total space. The architecture of the building will reference barn architecture with a partial second floor to house office and meeting spaces. The site plan, building form and material/color selections provide visual cues that this is the primary location for customer interaction.

The third building will be an unconditioned warehouse space with approximately 17,000 sf for material storage and loading. There will be large garage doors on the south and north sides of the structure for customers to access materials. All three buildings will offer a presence to Parker Dr. to give the site a focal point from the intersection of highest use. While these are relatively simple materials, they are attractive and fit in the context.

To the north of the buildings will be a large yard for outdoor material storage. Truck circulation will take up much of the space as semi-trucks deliver large orders of materials and smaller trucks will be used for area deliveries. Stacked lumber will be on the western periphery and center of the material storage yard, while other building materials will be stored in a three-sided shed along Parker Dr. The eastern boundary shed, together with landscape materials will provide screening from SH 133.



Access

Vehicular access to the lumberyard will be from the corner of Shorty Pabst Dr. and Nieslanik Ave. BFS delivery trucks used for local deliveries and customer vehicles will all enter and exit from this location. Semi-trucks will enter at the same location but exit from a controlled gate to Parker Dr. and then return to Shorty Pabst Dr. for egress. At some point in the future, if/when the connection is made to Industry Place and SH 133, then access could be adjusted for other trips that would benefit from that egress.

The grades on the site influence elevations and access.

The buildings will be below the elevation of the Nieslanik Ave. and Parker Dr. which will help to further reduce the massing and scale of the buildings.

Vehicle access to the site
will be from the corner of
Shorty Pabst Dr. and
Nieslanik Ave.

Bicycle and pedestrian access will be consistent with previous Town goals. A major new bike/pedestrian connection is incorporated from Shorty Pabst Dr. to SH 133. Pedestrian access will also be available via sidewalks that link in logical ways to the higher activity areas around City Market and 1st Bank.

BFS has enough “real-world” history in the area to understand the necessary parking requirement for the facility. 44 regular and 2 handicap spaces are proposed. The peak use is in the early morning as contractors gather materials for that day’s work. The combined retail, office and showroom are +/- 12,240 sf of space. At a minimum of 1 per 300 sf, that would equal 41 parking spaces required by code. A loading dock is provided on the north side of the warehouse building for material delivery.

Site Plan Highlights

When working on a site plan, one comes across the central features that define the project opportunities and constraints.

Grades

One of the early objectives of the site plan was to work with the topography of the site as much as possible. The site drops several feet as one moves to the north and west. The site plan intentionally made that farthest from the other commercial activity areas and the main access point. Planning the outdoor storage area to north end of the site minimizes the impact of the grade change, allows for positive drainage toward an existing drainage receiving area to the north, and lowers the visual impact of material storage.

A long-standing drainage easement exists on CRMS property to the north for the benefit of the subject property that will be used for receiving overflow of stormwater or other drainage. That area is displayed on Exhibit B.

Placing the showroom feature at the corner will offer a more commercial feel to the site.

Commercial at Corner of Nieslanik Ave. and Parker Dr.

Siting a building, in this case the more contemporary design showroom, at this corner location would help give form and a sense of entry to the intersection that will be used by those visiting City Market and the associated commercial spaces. Placing the showroom at the corner will offer a commercial feel to the site.

The remaining buildings front Parker Dr. and even though access is to the rear, they create a street frontage that will compliment future development on Lot 5C.

Views from SH 133

Over time, Lot 5C will develop with another commercial use and the lumberyard will have minimal visibility. In the interim, the site plan offers its best face forward toward SH 133 and Parker Dr. The perspective from SH 133 uses building forms and colors to offer variety and a barn-like form that relates to the agricultural history of the area and the Bar Fork barn at CRMS. A shed along the eastern boundary will screen materials storage from most of the viewshed. The buildings are setback about 200' from SH 133.



Comprehensive Plan Conformance

In 2013, the Carbondale Comprehensive Plan's Future Land Use Map designated the area New Urban. The intention of the land use designation is to support commercial, mixed use, and urban residential buildings that front sidewalks/streets with prominent corner buildings, parking internal to the site, and a circulation system that welcomes autos, bikes, and pedestrians.

The future mixed-use buildings at Lot One, along Main St. and Hendrick Dr. will most closely resemble what many think of as “new urbanism”. As one moves north on the site through City Market, the gas station, and 1st Bank, the emphasis shifts toward maintaining good access for pedestrians, bikes, and cars and using building forms and colors/materials to implement UDC intentions. This is fairly typical of larger new urban type development that mix residential and larger scale commercial uses.

The project's commitment to improved trail access through the site, connecting Main St. to SH 133 without a street crossing, is evidence of the project's commitment to the multi-modal goals of the Comprehensive Plan even though it will not benefit this specific project in a material way.

The lumberyard is expected to be a significant contributor to local sales taxes.

Another Comprehensive Plan goal is to “Capture More Local Spending” and to “augment town sales tax revenues”. Since Carbondale does not currently have a lumberyard, thus it adds to the diversity of commercial businesses in the town. The lumberyard is expected to be a significant contributor to local sales taxes. While use taxes are collected to areas of delivery, local materials and materials purchased on-site are subject to local sales taxes.

Major Site Plan Review

Site planning was done using the UDC as a template as described above.

	Code Requirement	Response
Minimum Lot Area T.3.2-9	15,000 sf 100' d x 100' w	Lot area 5A- 182,679 sf Lot Area 5C- 53.921 sf
Setbacks T. 3.2-9	5' front 0' side 20' rear	Complies See Exhibit B
Height T. 3.2-9 5.7.7.C	35' max. primary 25' accessory	Complies See Exhibit D
Impervious/Landscape T. 3.7.3 & 5.4.4	80% impervious	Complies without trail Alt Compliance- Trail See Exhibit C
Use T. 4.2-1	Building Supplies is a Permitted use	Complies
Off-Street Parking T. 5.8-1 5.8.6	9000 sf retail/office 3240 sf showroom	Complies 1:300= 41 spaces 44 + 2 HC proposed See Exhibit B
Bike Parking 5.8.7	1:3 parking spaces Shower required	Adjustment Proposed- 14 spaces required, 6 proposed instead Shower in retail building See Exhibits B and D
Loading Dock 5.8.6.k & 5.8.3.D	One Dock Required	Complies, north side of warehouse on Exhibits B and D
Street planting 5.4.3.B Trees	Landscape Plan	Complies See Exhibit C
Parking Island Landscape 5.4.3.C	Landscape Plan	Complies See Exhibit C
5.4.5 Screening	Solid material Blocks view	Alternate Compliance- see application
5.5.2.E Bike lanes	Required	Complies See Exhibit B
Pedestrian Circ. 5.5.3.D	Trail plan	Complies See Exhibit B

	Code Requirement	Response
Commercial Design 5.7.3, 5.7.4 5.7.6 > 10,000 sq. ft.	Corner and street connections, Variations in plane and horizontal Transparency	Alternative Compliance See Exhibit D and E
Design Off-Street Parking 5.8.6 & 5.10.C	Dimensional Requirements	Complies See Exhibit B
Exterior Lighting 5.10	Night sky compliance	Complies Concept on See Exhibit F, final with building permit
Site Plan 2.5.3.F.a	Topography 2' contour Adjoining property uses Proposed buildings Existing buildings Parking areas, drives, sidewalks Landscaping, fences/walls Elevation of fences/walls Streets, alleys, trails Solid waste Snow storage Utilities & easements	Complies See Exhibit B See Exhibit J for adjoining uses See Exhibit C for fences See Exhibit L for snow storage
Site Plan 2.5.3.F.b	Table with site calculations	Complies See Exhibit B
Site Plan 2.5.3.F.c	Conceptual building elevations	Complies See Exhibit D
Site Plan 2.5.3.F.d	Sample material board	Complies See Exhibit E
Site Plan 2.5.3.F.e	Dimensioned floor plans	Complies See Exhibit D
Site Plan 2.5.3.F.f	Grading plan	Complies See Exhibit L
Site Plan 2.5.3.F.g	Irrigation Plan	Complies See Exhibit C and Exhibit I

	Code Requirement	Response
Preliminary Plat 2.6.4	2' contours Ownership of adjacent properties Street width, names, ROW Easements Solar Access Proposed Covenants Title Commitment & Letter of representation Utility Plan Street Profile Drainage Irrigation Land Dedication	Complies See Exhibit N
Final Plat 2.6.5	Boundaries Easements Tables for lines/curves Control points Streets, addresses, etc.	Complies See Exhibit N

There is no solar shading analysis required for property in the CRW zone district when there is no adjacent property with residential zoning (5.12.5.C). With regard to energy, the lumber yard is an all-electric development that will benefit from advances in renewable energy supplied to the grid. There is also sufficient south facing roof area to accommodate any solar photovoltaic required for the uses.

A Lighting Concept Plan is included to provide a sense of the direction, however the detailed analysis required by the Lighting Code will be presented for staff review with the application for Building Permit. A sign permit application will be submitted at a later time.

Subdivision Review

The UDC prescribes criteria for review of subdivisions. They are relatively straightforward and designed to ensure orderly development of subdivided properties. The lots and blocks and layout of roadways on Lot 5 are integrated with the surrounding development and provide convenient access to and through the proposed uses of Lots 5A Amended, 5B, and 5C.

The site plan has been developed in a manner to work with rather than in opposition to that grade change.

No hazards have been identified on the site that require mitigation nor have any significant trees/vegetation that should be avoided been identified. The grade slopes from the southern end of the property toward the north western side of the property. The site plan has been developed in a manner to work with rather than in opposition to that grade change.

The soils on the site are similar to other soils on adjacent property and suitable for development. A soils report is included as Exhibit Q.

Utilities to this site have been developed for previous development approvals. Existing underground electric, an 8" water line, an 8" wastewater line, and irrigation water are available to Lots 5A Amended and 5C from adjacent rights-of-way and a utility easement will be dedicated in this plat that extends to the northern end of the property.

Rights of way improvements and trail connections and associated landscaping will be installed by the property owners and then dedicated to and maintained by the Town. Drainage and access easements will allow snow storage and drainage to occur on CRMS property to the north of the site. No dedication of land for parks is required by Code. The Irrigation Plan is displayed in Exhibit C.

While no covenants are proposed, there is an agreement that ties the property to other lots in the subdivision. The agreement is primarily related to water and irrigation (Exhibit I). Crystal River Marketplace, LLC has an agreement with Colorado Rocky Mountain School for the Storm Water Detention Easement as proposed north of Lot 5A Amended and Lot 5C for submission to and review by the Town of Carbondale. Once the Storm Water Detention design has been approved by the Town the easement will be recorded and evidence of that provided to the Town prior to recordation of this plat.

A solar access plan is not required for property in the CRW zone district that does not have adjacent residential zoning. A title commitment was provided as Exhibit H. Sopris Engineering has prepared a Utility Plan that is attached as Exhibit K. The streets and utilities are largely in place at this time and have been reviewed as part of previous approvals. The Drainage Plan is provided in Exhibit L. No land dedication is required for parks, however, Builders FirstSource is proposing to build a trail around the site and dedicate the land to the Town. Existing topographic contours are displayed on Exhibit A.

Key Compliance Topics

Traffic

A Traffic Report was prepared by Kimley Horn and Associates, Inc. The same firm prepared the study for Lots 1 through 4. The intention of such a report is to estimate near and long-term traffic related to the subdivision and full buildout of Lot 5 into Lots 5A Amended, 5B, and 5C.

In addition to review by the Town, the report is required for review by Colorado Department of Transportation (CDOT) engineers related to access to SH 133 and thus the format of the report is in response to CDOT requirements and protocols. An application has been submitted to CDOT. After Subdivision and Site Plan approval, CDOT will act on any required permits.

The Report addresses traffic for the lumberyard on Lot 5A Amended, 1st Bank on Lot 5B and 10,000 sf of potential commercial development on Lot 5C. It assumes that in 2022 all of those uses are in operation and the City Market and Lot 1 are fully developed.

The report estimates that, when fully built out, the three lots will generate 115 morning and 191 evening peak hour trips to and from the site

The report uses recent traffic counts and adds the new trips from Lots 1-5 in order to understand the impact on intersection performance. The report then looks forward and adds future background traffic growth estimated by CDOT to existing trips. This allows a projection of traffic flow in 2040.

As we all experience, the critical trips in traffic planning are during the peak morning and evening hours when congestion is most likely. Residents are also aware that left turns across SH 133 are currently problematic during busy hours of the day.

The report estimates that, when fully built, the three lots will generate 115 morning and 191 evening peak hour trips to and from the site. A total of 1,264 daily trips are estimated. That number includes the existing 1st Bank trips. The report estimates that 1st Bank will make up 63% of p.m. peak hour trips to the site and the lumberyard 24%. Over the course of a day, the lumberyard is expected to generate 35% of the trips to Lot 5.

For example, someone driving from their home to the bank and then returning would equal two trips. In general, commercial sites have more evening peak hour trips. The lumberyard is the exception, with more morning than evening peak hour trips as contractors gather their materials for the day in the early morning.

	Total Trips	AM Peak	PM Peak
5A Lumberyard	438	48	46
5B 1 st Bank	588	56	120
5C Future	238	11	25

There are currently about 14,600 trips per day north of Main St. on SH 133, about 9,900 trips south of Main St. on SH 133, about 2,900 on W. Main St. near Lot One and 5,700 trips on Main St. east of SH 133.

Delivery trucks will enter the site via Shorty Pabst Way and exit the same way along with City Market deliveries. Those coming to the site from the North will likely use Nieslanik Ave. and depart that way if heading south. Some additional trips will enter or depart the site at the intersection of Hendrick Dr. and Main St. There will be some shared trips for the lumberyard, bank, city market, gas station, and housing but no effort has been made to reduce trip counts based on those shared trips to provide a conservative analysis.

The study then looks at 2040 and background traffic growth estimates from CDOT. The traffic is measured against existing and required improvements related to previous approvals including a number of CDOT-approved improvements to SH 133 along the site. Both the 2022 and 2040 analysis include the existing intersection at Nieslanik Ave. and one under construction near the new gas station. Both of these intersections will allow customers to exit using right hand turns heading south on SH 133 to the roundabout.

Left-hand turns will be allowed from north-bound vehicles on SH 133, however no left turns will be allowed out of the site onto northbound 133 and those vehicles will need to travel through the Main St. roundabout to head north.

The traffic report suggests that SH 133 and the Main St. roundabout perform well into 2040 with separate right turn approach lanes added on Main St.

The projections for 2040 suggest that the intersection of Hendrick Dr. and Main St. will perform satisfactorily with four-way stop control.

The traffic report suggests that SH 133 and the Main St. roundabout perform well into 2040 with separate right turn approach lanes added on Main St.

The Nieslanik and SH 133 intersection will likely experience significant delays by 2040 for turns onto SH 133 with or without Lot 5 development. A future Industry Place intersection, planned at this point as a roundabout, is planned to mitigate the situation as traffic grows on SH 133. Lot 5A and 5C would expect to contribute toward the construction of that roundabout proportionate to previous agreements for the other lots. Land is dedicated in this subdivision to further that future project.

While some bicycle traffic is expected to the site, the code would require 14 bike parking spaces. The lumber use is less likely to generate bicycle trips than some other commercial uses and thus 6 spaces are proposed instead. The UDC allows adjustment of that number of spaces based on the type of use (5.8.7.A.3). The primary beneficiary of bike and pedestrian use on the trail around the site will be to the benefit of other destinations. A shower in the facility is included as per code.

Water Rights

The Engineering Report (Exhibit O) includes a discussion of the irrigation water rights used by the project and domestic water usage. Irrigation water from the Rockford Ditch serving the adjacent City Market site and Lot One are drawn from the northwest corner of Lot One. The irrigation for all of the lots is shared and maintenance is the subject of a previous agreement, with City Market taking primary responsibility (see Exhibit I).

Domestic and irrigation water would be provided through dedication of water rights appurtenant to the property. Total EQR's proposed for the Lumber Yard development on Lot 5A Amended equals 13.70 EQR's. Based on the Town's Rockford Ditch water right change case decreed in Case No. 88CW421, 0.52 shares are required to be dedicated per each EQR. Thus, the Lumber Yard development should allocate an estimated 7.12 shares. It should be noted that this analysis should not be considered final and the number of shares required to be allocated to the Town will be determined by the Town attorney and Town water rights engineer. This analysis is for estimation and information purposes.

The Town has previously approved other lots for subdivision and specific developments. The water rights and irrigation for all of the lots are shared and subject to a recorded agreement. Lot 5, including 1st Bank, was assigned 36.8% of the total irrigation water for the entire area. The distribution for lots 5A and 5C is documented in Exhibit O and the landscape plan for the site was based on the appropriate water calculation. The irrigation water has a central distribution point for all lots. BFS will pay for installation of the irrigation system and plantings along the bike/pedestrian trail along the north and west perimeter of the property and dedicate the land to the Town.

Linkage to Lots 1, 2, 3, and 4

While land use for the site has evolved rather than being master planned, the infrastructure planning has been comprehensive. Road, bike, and pedestrian connections, utility connections, compatibility of land uses all work together. The denser and more residential components orient towards Main St. and the auto-oriented uses are farther toward the north with connections to the state highway in a logical manner.

Sales Tax Generation

The Town desires sales tax generation from this site and the lumberyard achieves that without relying on forms of commercial development that have not been embraced by the community, such as big box retail or drive through fast food. Sales and use tax from sales on Lots 5A Amended and 5C will help fund Town services. While use taxes on goods delivered to areas outside of Carbondale are reserved for those Towns, on-site sales and building materials for local projects are to the benefit of Town tax revenues. Like most sales tax collections, the amount will vary based on the level of economic activity.

Lighting

Site lighting for the lumberyard is only on during operating hours. The lighting scheme will optimize use of fixtures attached to structures. A conceptual light plan is included as Exhibit F and more detailed information on fixtures and lighting will be provided with the building permit application.

Alternative compliance- Landscape Plan/Trail

The parcel and site plan include enough land to meet the 20% landscaping required by the UDC. However, there is an opportunity to connect the SH 133 corridor to W. Main St. without street crossings in order to encourage pedestrian and bike connectivity. BFS is proposing to purchase additional land to make the connection to SH 133 and to build the trail and dedicate the land to the Town. In creating the trail, the landscape will fall below 20%. Drainage is not a concern for this project as there is a long-standing easement agreement with the Colorado Rocky Mountain School for drainage on their adjacent land. Snow storage will occur in that easement as well as parking lot areas defined on Exhibit L.

In creating the trail, the landscape will fall below 20%

Calculations (square feet)	
Lot 5A Amended Area	182,679
20% requirement	36,536
On-site landscape	24,443
Dedicated Trail and Landscape	15,069
Total on-site and trail	39,512

Alternative compliance- Screening/Fence

The UDC calls for all materials to be stored below screening and for a maximum fence height of 8'. The site plan does an excellent job of screening stored materials from the vantage point of SH 133 and Parker Dr. A three-sided storage structure will shield most of the material storage area. The shed is designed with materials and colors that are in harmony with the buildings on the site. Height varies between 18' and 20' high. An 8' solid wood fence will provide screening on the portions of the east side that are not screened by the shed.

The site plan does an excellent job of screening stored materials from the vantage point of SH 133

Additional stored lumber along the western side of the site will be on open air racks, see below for example, that will rise above the fence top. Materials are often stored up to 12' above the ground and for very short periods of time up to 16' above ground. There are no adjacent residential properties or public roads to the west or north to view these materials.

In addition to the shed and solid fencing, there will also be landscaping along the eastern property line as per Exhibit C. The fencing along the northern, western, and southern sides will be an 8' chain-link fence with opaque material attached, additional info is provided on Exhibit C. The fence is attached to a retaining wall that will vary in height based on the grade but is not greater than 3' tall. That 3.5 feet plus the 8 feet of fencing means that 11.5 feet of screening is provided in that area. The code would limit that total to 8'.

Alternative compliance- Commercial Design

While care has been made to use non-traditional lumberyard buildings to comply with the spirit of the UDC and Comprehensive Plan, a lumber yard still needs to be a lumberyard. The elevations display that the building design uses changes to color, material and form to create architectural interest. The glazing, use of barn doors and movements of the building are intended to address the spirit of the code but will not meet the letter in some cases. By code, this would be a corner lot and both the south and east sides would be considered fronts, with 30% glazing on the lower level and 20% glazing on the upper level. That would work for downtown or strip mall type commercial but not for a lumber usage. Glazing is focused on the east side to establish a commercial look where most travelers to the site will see it and to create a visual cue for entry.



Builders FirstSource has made efforts to balance the form with function and sees this as a showcase from a lumberyard perspective. The expectation is that the level of information provided will make the Town comfortable with the buildings described in this particular location. Simple renderings and detailed elevations of the western and southern sides are provided to display the design's response to the criteria at this site for this use. A rendering of the view from SH 133 is also provided to give a sense of the visual until a building is constructed on Lot 5C.

The storage shed is broken into three sections even though there is no road fronting that section of the site. The three sections are each about 66' 8" long, rather than the 60' prescribed in the code and roof line variation and the use of a false barn door are employed to break up the linear nature of the use while allowing the appropriate lengths of lumber material to be stored under roof with room for safe maneuvering around them. Proposed landscaping will bring additional color and texture to the visual of that area from SH 133.

List of Exhibits

Exhibit A	Existing Conditions
Exhibit B	Site Plan
Exhibit C	Landscape & Irrigation Plans
Exhibit D	Architectural Floor Plans & Elevations
Exhibit E	Architectural Materials Palette
Exhibit F	Lighting Concept
Exhibit G	300' Owner Report
Exhibit H	Title Commitment
Exhibit I	City Market Easement Agreement
Exhibit J	Adjoining Properties and Current Land Use
Exhibit K	Utilities Plan
Exhibit L	Drainage, Grading, and Snow Storage Plans
Exhibit M	Roads, Easements and Setbacks
Exhibit N	Plats
Exhibit O	Engineering Report and Cost Estimate
Exhibit P	Traffic Study
Exhibit Q	Soils Report



Town of Carbondale
511 Colorado Ave
Carbondale, CO 81623
(970)963-2733

Pre-Application Meeting Date _____
Fees _____ Date Pd _____

Land Use Application

PART 1 – APPLICANT INFORMATION

Applicant Name: **Builders FirstSource by Robert Schultz Consulting LLC** Phone: **970-462-1280**
Applicant Address: **38005 Highway 82 Aspen, CO 81611**
E-mail: **doug.williams@bldr.com**
Owner Name: **Crystal River Marketplace LLC** Phone: **970-923-3088**
Address: **20 Sunset Dr. Basalt, CO 81621**
E-mail: **briston@brikor.com**

Location of Property: provide street address and either 1) subdivision lot and block; or 2) metes and bounds:

Carbondale Marketplace Subdivision Lot 5A

PART 2 – PROJECT DESCRIPTION

General project description:

Subdivision into two lots and rights-of-way, Major Site Review for Lumberyard

Size of Parcel: **6.006 acres** # Dwelling Units: **0** Sq Ftg Comm: **12,400 sf commercial**
17,000 sf warehouse
Type of Application(s): **Preliminary/Final Plat, Major Site Review, Alternative Compliance**
Existing Zoning: **CRW** Proposed Zoning: **CRW**

PART 3 – SIGNATURES

I declare that I have read the excerpt from the Town of Carbondale Municipal Code Article 8 Land Use Fees. I acknowledge that it is my responsibility to reimburse the Town for all fees incurred as a result of this application.

I declare that the above information is true and correct to the best of my knowledge.

Applicant Signature

Date

Signature of all owners of the property must appear before the application is accepted.

Owner Signature

Date

Owner Signature

Date

STATE OF COLORADO

COUNTY OF GARFIELD

)
) ss.
)

The above and foregoing document was acknowledged before me this **30th** day of

March 20**20**, by **Briston Petersen**

Witness my hand and official

My commission expires: **9/8/2023**

Amanda Salas
NOTARY PUBLIC
STATE OF COLORADO
NOTARY ID# 20154004428
MY COMMISSION EXPIRES 8/8/2023

Amanda Salas
Notary Public

Crystal River Marketplace LLC
AUTHORIZATION AND REPRESENTATION

Date:

Crystal River Marketplace LLC grants the following individuals the rights of representation for subdivision of Lot 5A of the Crystal River Marketplace Subdivision:

Robert Schultz, Robert Schultz Consulting- Planner
Yancy Nichol- Sopris Engineering

Please contact me with any questions at briston@brikor.com.

Yours truly,



Briston Peterson
Managing Partner, Crystal River Marketplace LLC

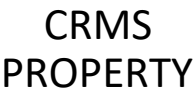
JOB NO. 19206

MAJOR SITE PLAN REVIEW APPLICATION

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EXISTING CONDITIONS

A



LOT 5B
FIRST BANK

NIESLANIK AVENUE

LOT

LOT 2

LOT

CRMS
PROPERTY

EXISTING
ROCKFORD DITCH
EASEMENT

EXISTING ASPHALT TRAIL

_____ ETC _____	EXISTING ELECTRIC, TELEPHONE, CABLE
_____ 8" W _____	EXISTING 8" WATER
_____ irr _____	EXISTING IRRIGATION
_____ ug _____	EXISTING UNDERGROUND GAS
_____ uc _____	EXISTING UNDERGROUND CABLE
_____ ue _____	EXISTING UNDERGROUND ELECTRIC
_____ 8" SS _____	EXISTING 8" SANITARY SEWER
_____ X _____	EXISTING FENCE

(IN FEET)
inch = 40 ft.



**Know what's below.
Call before you dig.**

CALL 2-BUSINESS DAYS IN ADVANCE
BEFORE YOU DIG, GRADE, OR EXCAVATE
FOR THE MARKING OF UNDERGROUND
MEMBER UTILITIES

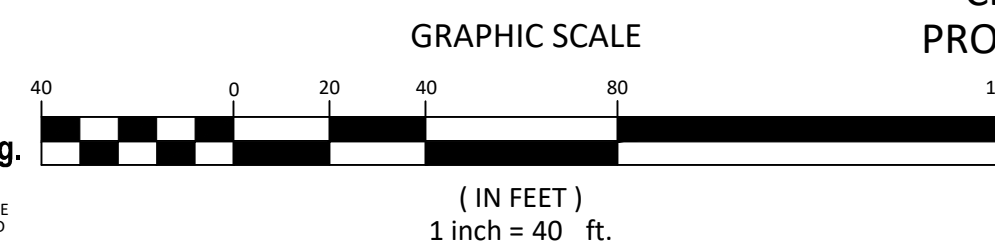
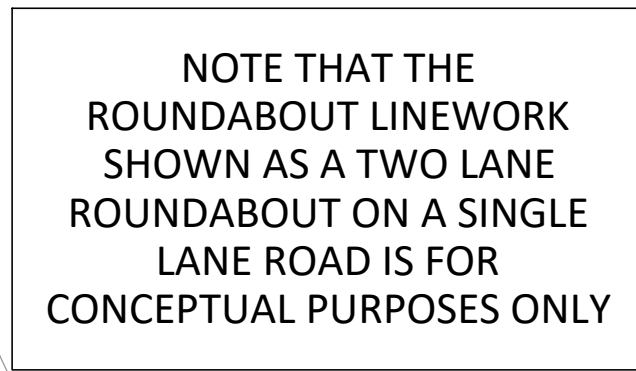
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LOT 5A, 5C CARBONDALE MARKETPLACE SUBDIVISION
CARBONDALE, COLORADO

MAJOR SITE PLAN REVIEW APPLICATION

DATE	REVISION
05/12/20	△ REVISED EASEMENT & DRAINAGE INFRASTRUCTURE, DOOR MOVED
TITLE	
SITE PLAN	
EXHIBIT	
B	

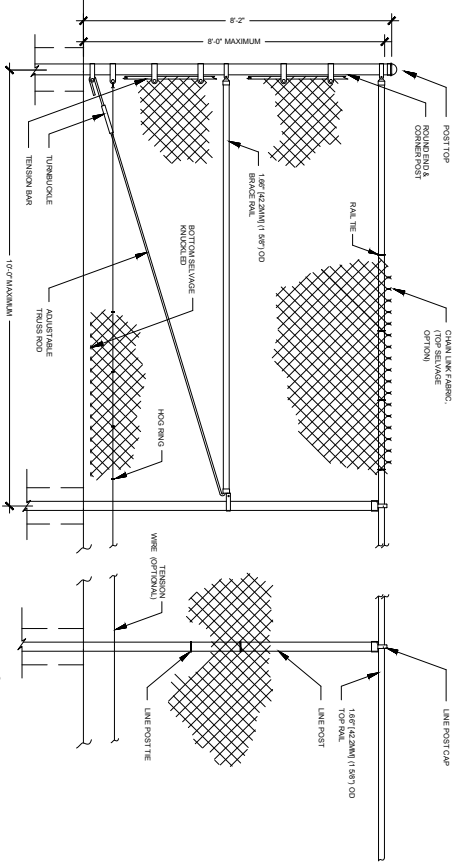
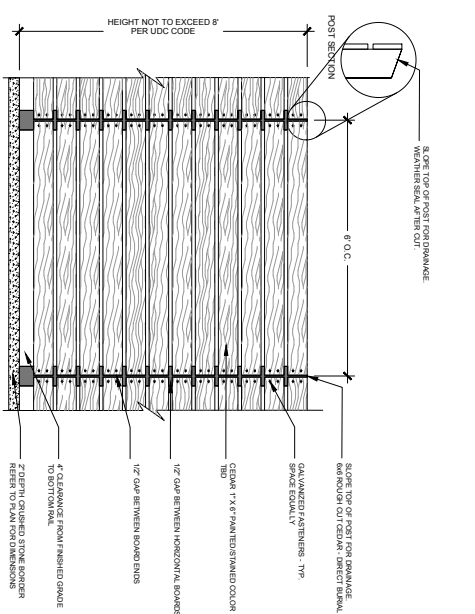
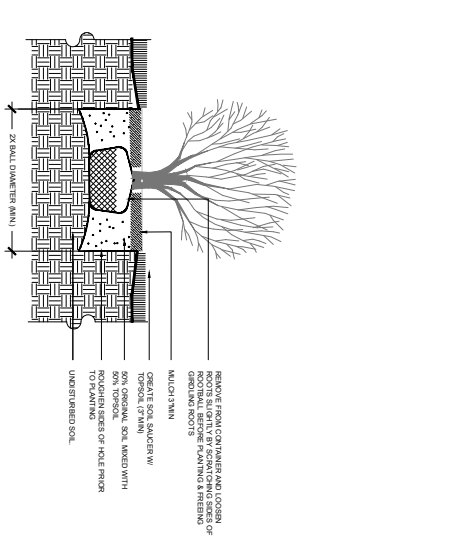
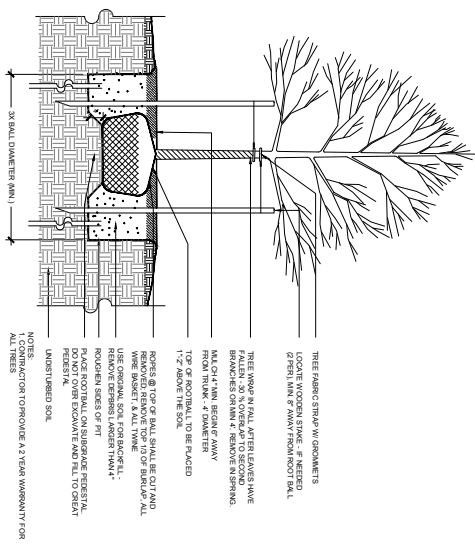
- PARKING REQUIREMENTS:**
- COMBINED RETAIL, OFFICE, & SHOWROOM = 12,240 SF
 - MINIMUM PARKING IS 1/300 SF = 41 SPACES
 - PROPOSING 44 SPACES PLUS 2 HANDICAP



CRMS

PEDESTRIAN RAMP, RADIUS
IRRIGATION VAULT, & LIGHT POLE
BASE TO BE ADJUSTED/ RELOCATED
FOR WIDENED TURN LANE





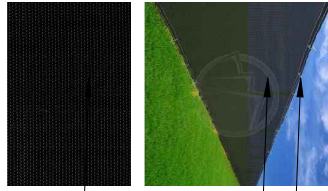
NOTES:
 1. METRIC DIMENSIONS ARE NOMINAL EQUIVALENTS TO U.S. DIMENSIONS.
 2. SPECIFICATIONS SHOWN CAN BE CHANGED BY MASTER HALCO ONLY.
 3. FOOTING WIDTH TO BE (4x) POST WIDTH. MINIMUM DEPTH 36\"/>

MASTER HALCO
 3010 Lyndon B. Johnson Fwy, Ste. 800
 Dallas, TX 75244
 www.masterhalco.com
 Phone No. 800-863-5344
 817-441-1600
 Fax No. 817-441-1600

CHAIN LINK WITH OPAQUE SCREEN
 36\"/>

ANTHONY WHITE'S FABRIC
 STYLE 21296

FIBER CONTENT	Tensile Strength			
	Warp	Length	Warp	Length
COARSE	1000	1000	1000	1000
STANDARD (4 x 5)	1000	1000	1000	1000
FINES	1000	1000	1000	1000
WEIGHT	4.4 oz/sq yd			
STRETCH	10% max			
UV RESISTANCE	10 years			
WIND RESISTANCE	100 mph			
FLAME RESISTANCE	10 years			
WATER RESISTANCE	10 years			
WARRANTY	10 years			



ORNAMENTS @ 36\"/>

HORIZONTAL WOOD FENCE
 36\"/>

L2.0

Issue Date: 4/05/20
 Drawn By: J. G. 05/07/20
 Checked By: J. G. 05/07/20
 Approved By: J. G. 05/07/20

SITE PLAN REVIEW



LANDSCAPE DETAILS

LOT 5A, MARKET PLACE
 NIESLANIK AVENUE, CARBONDALE, COLORADO

pi on saps
 landscape architects
 700 Redstone Ave
 Carbondale, CO 81623
 970.379.0816
 www.pionsaps.com
 (970) 379.0816

PROJ.	000000
NO	
DRAWN	Author
CHECKED	Checker
APPROVED	Approver
DATE	ISSUE DATE
REVISION	
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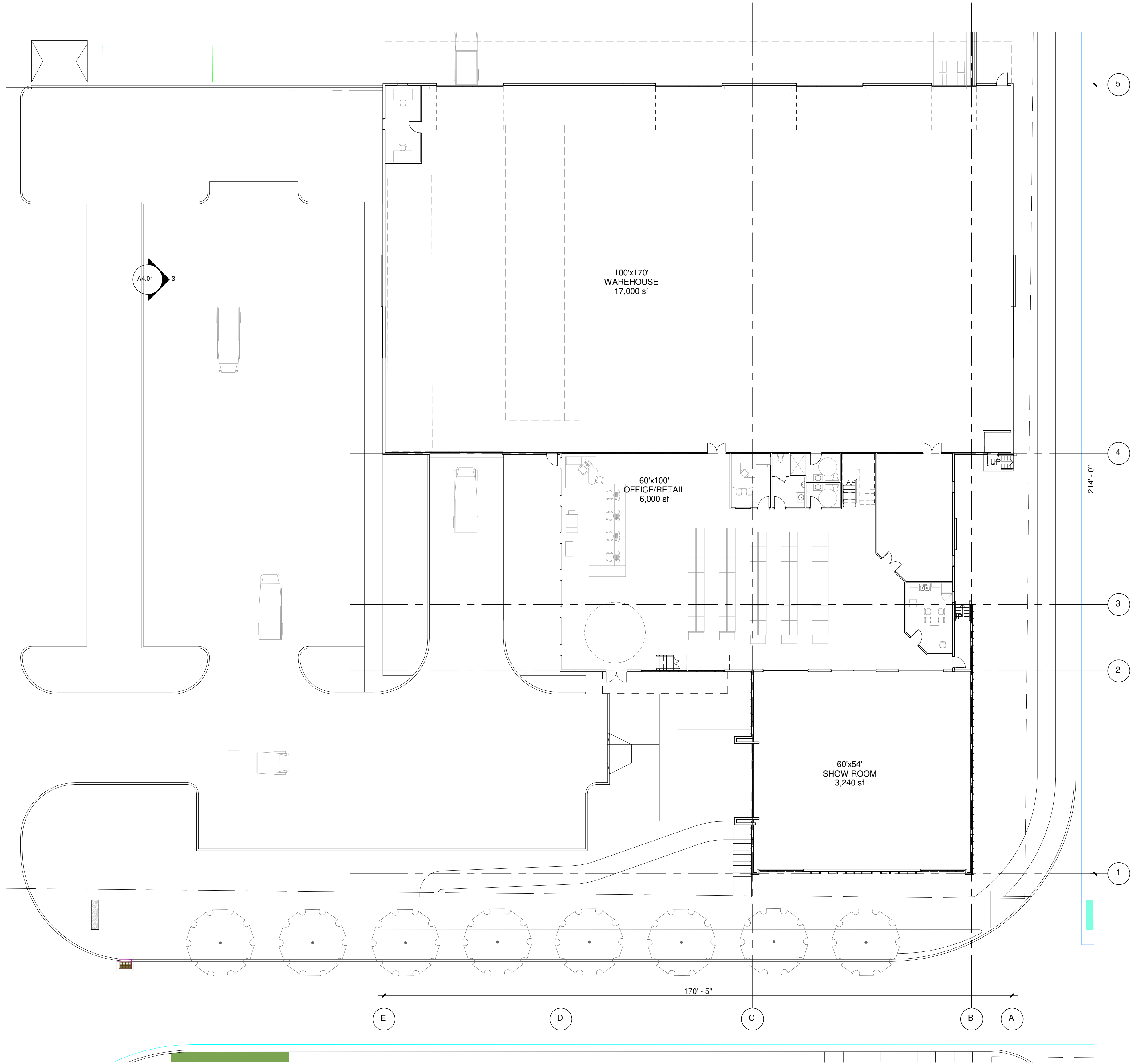
ISSUED
FOR: NOT FOR
CONSTRUCTION

© NEO
STUDIO

SCALE: 1/16" = 1'-0"

SHEET
LEVEL 1 FLOOR PLAN

A2.01

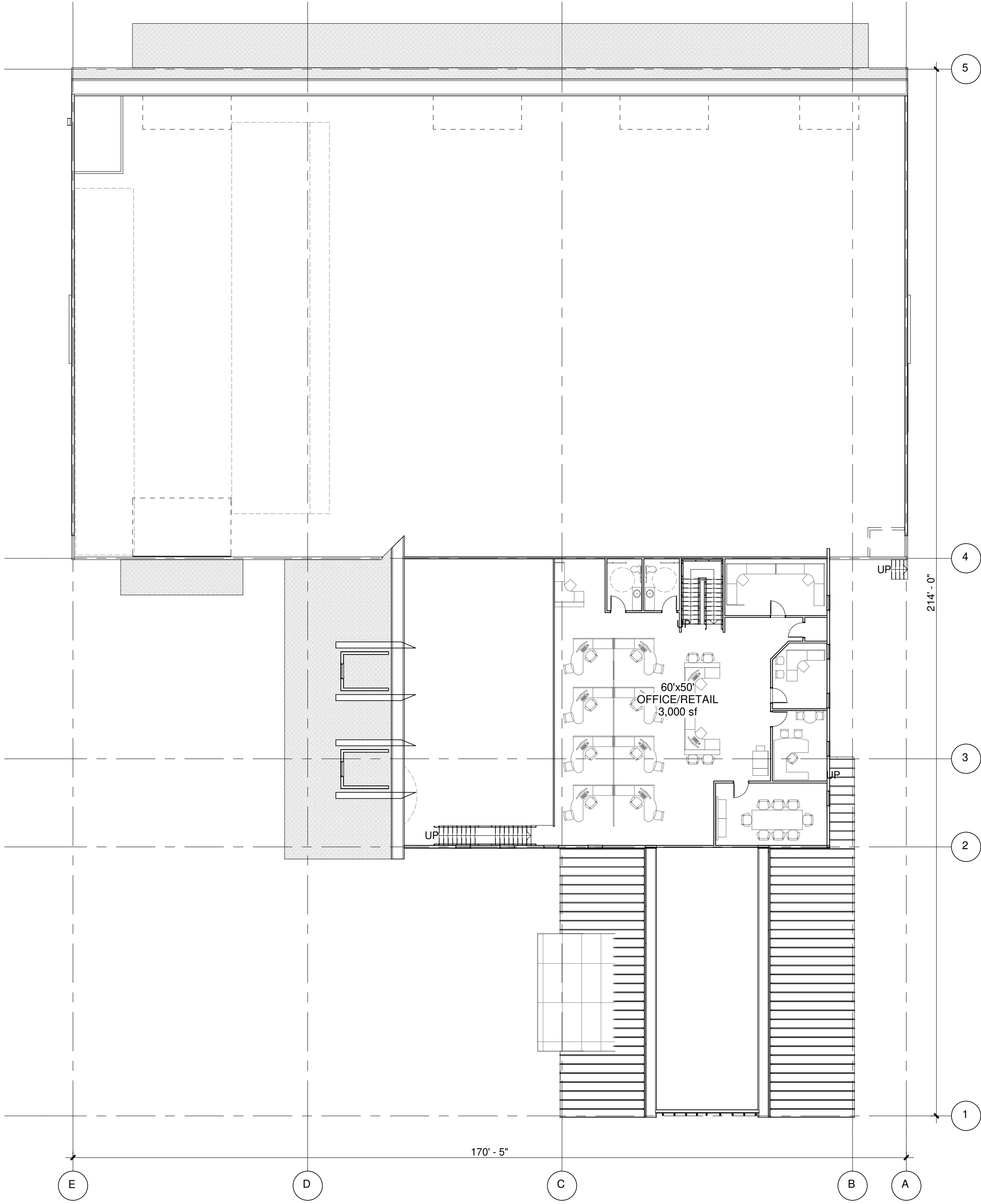


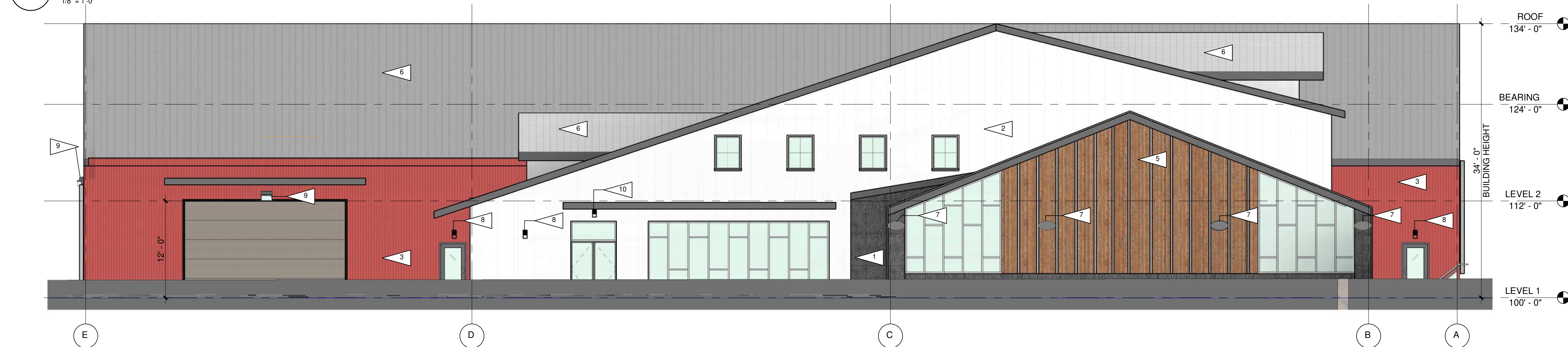
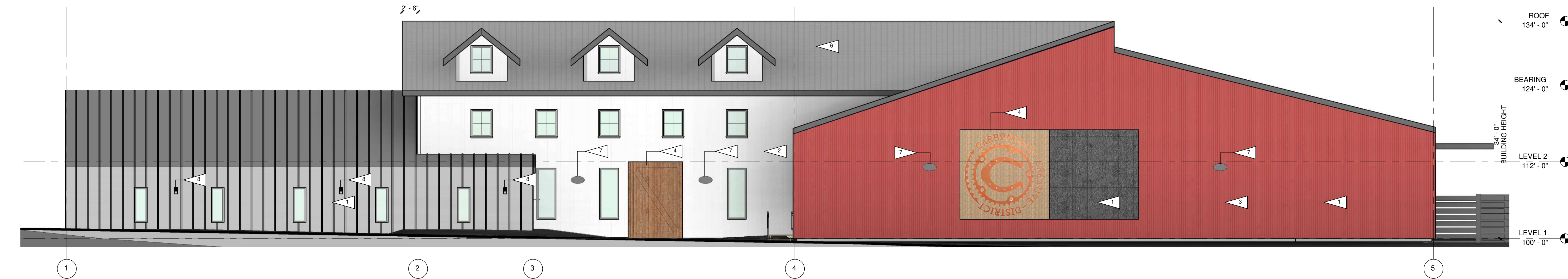
1 LEVEL 1 FLOOR PLAN

1/16" = 1'-0"

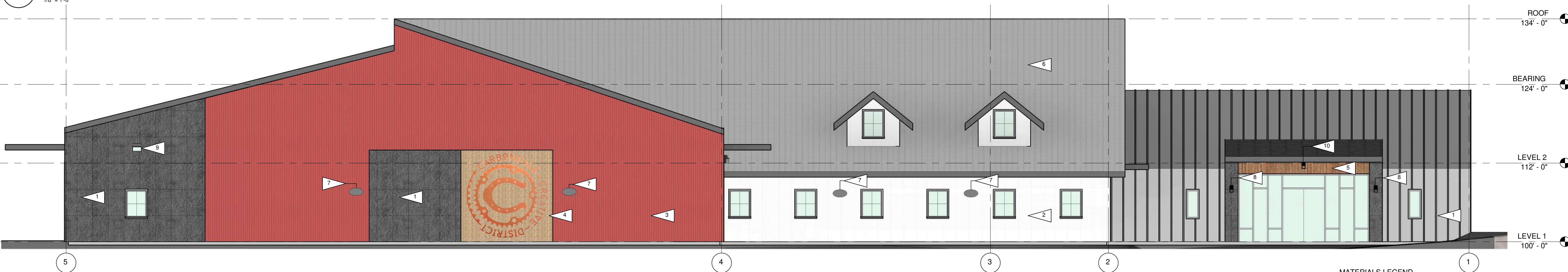
2 LEVEL 2 FLOOR PLAN

1/16" = 1'-0"





* NOTE:
GRADING IS SHOWN FROM THE ROAD; REFER TO CIVIL
SITE/GRADING PLANS FOR ADDITIONAL GRADING INFORMATION

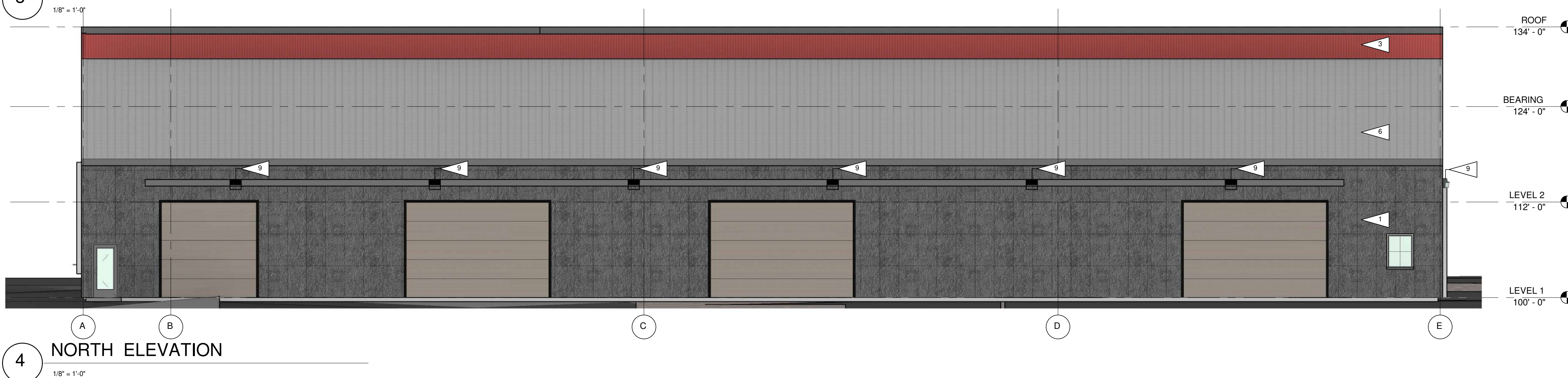


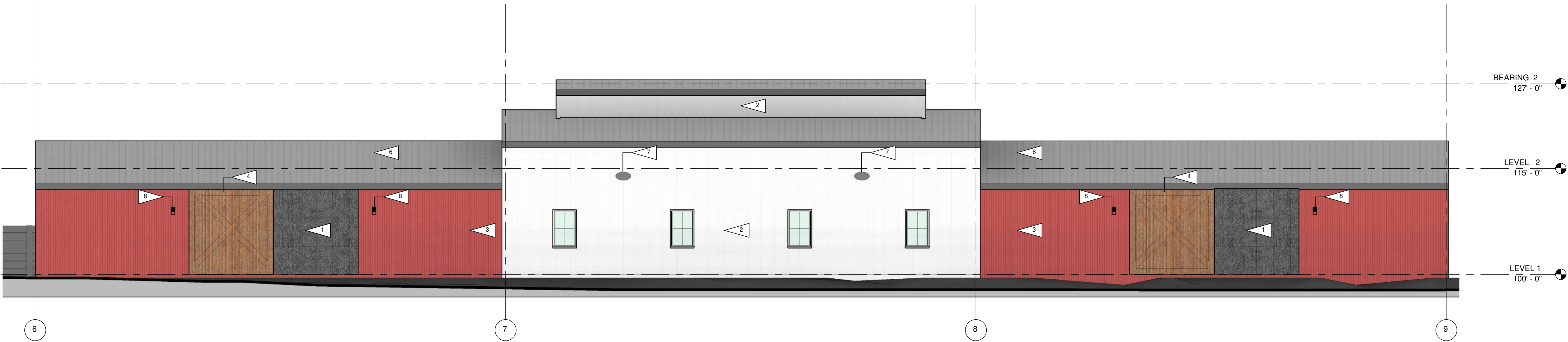
MATERIALS LEGEND

- 1 CHARCOAL STANDING SEAM ROOF AND SIDING
- 2 LIGHT GRAY CORRUGATED METAL SIDING
- 3 BARN RED CORRUGATED METAL SIDING
- 4 WOOD SLIDING DOOR / TRIM
- 5 VERTICAL WOOD SIDING - STAIN
- 6 MEDIUM GREY CORRUGATED METAL ROOF

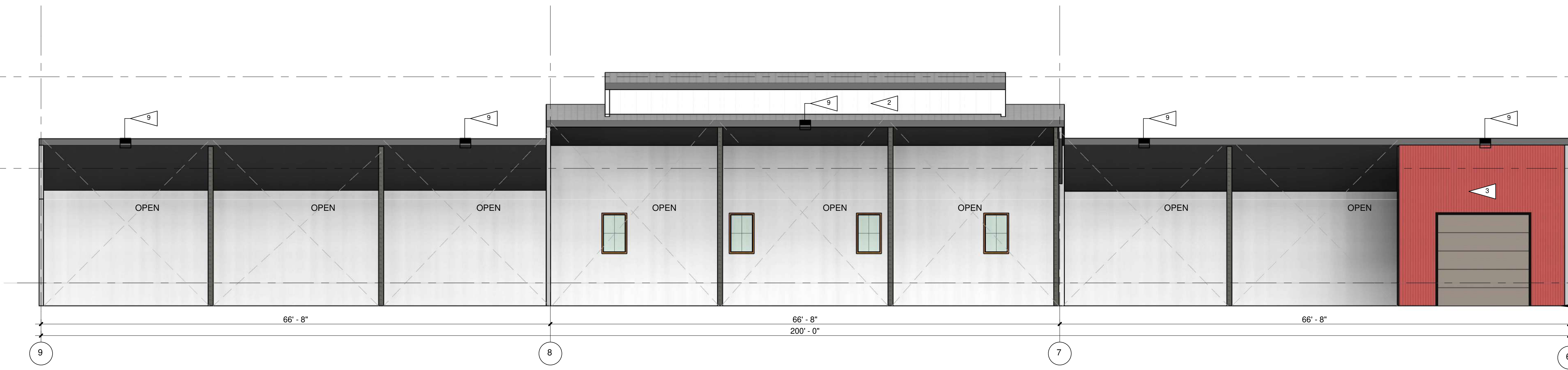
LIGHT LEGEND

- 7 DECORATIVE BARN LIGHT
- 8 FUNCTIONAL LIGHTING
- 9 WALL PACK

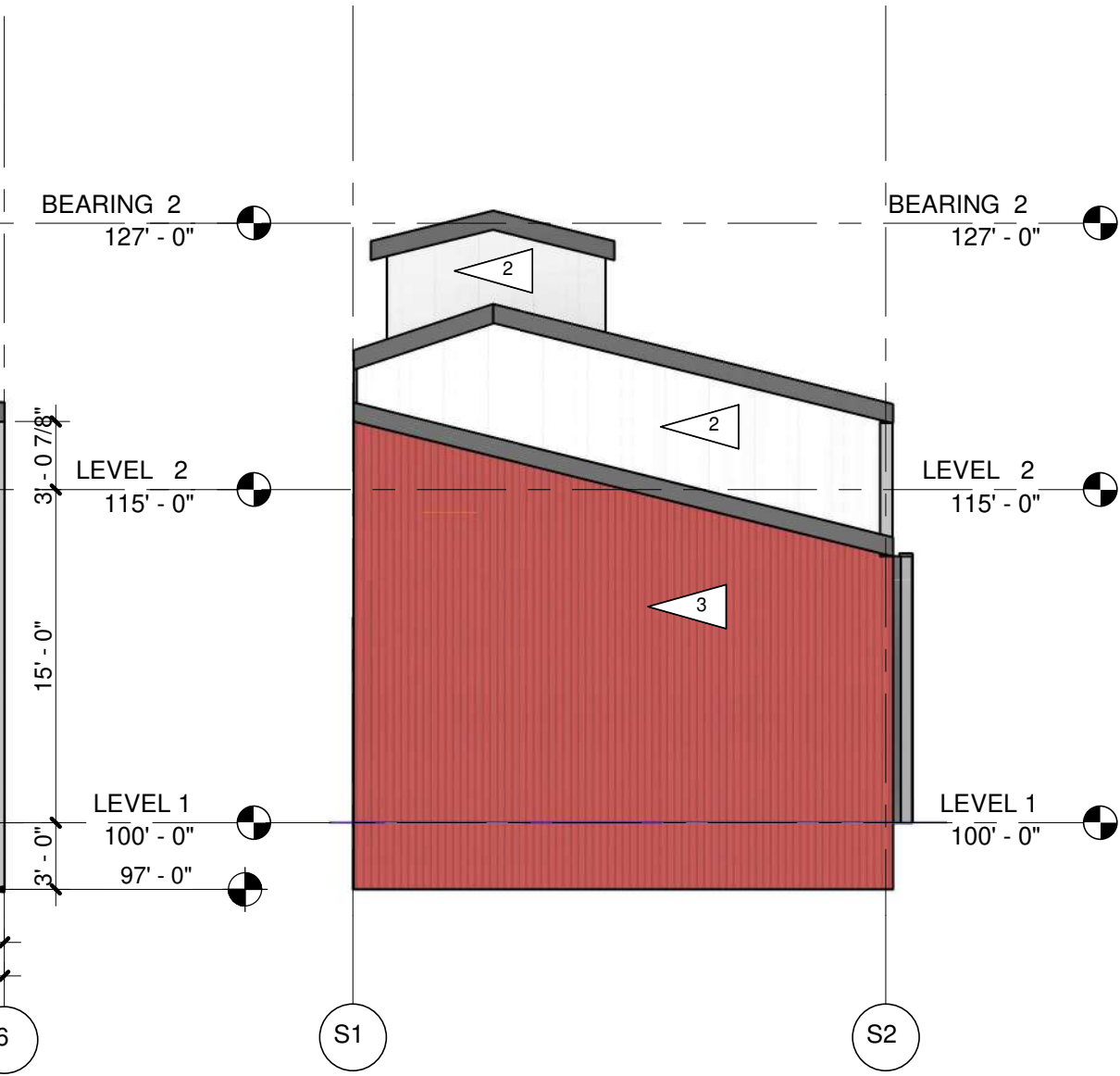




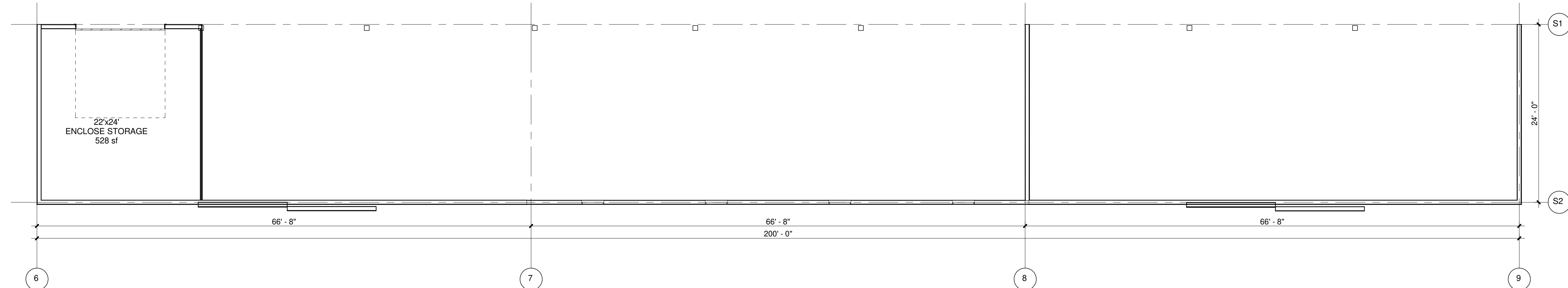
1 EAST ELEVATION- STORAGE
1/8" = 1'-0"



2 WEST ELEVATION-STORAGE
1/8" = 1'-0"



4 SOUTH ELEVATION-STORAGE
1/8" = 1'-0"



3 LEVEL 1 - STORAGE
1/8" = 1'-0"

MATERIALS LEGEND

- 1 CHARCOAL STANDING SEAM ROOF AND SIDING
- 2 LIGHT GRAY CORRUGATED METAL SIDING
- 3 BARN RED CORRUGATED METAL SIDING
- 4 WOOD SLIDING DOOR / TRIM
- 5 VERTICAL WOOD SIDING - STAIN
- 6 MEDIUM GREY CORRUGATED METAL ROOF

LIGHT LEGEND

- 7 DECORATIVE BARN LIGHT
- 8 FUNCTIONAL LIGHTING
- 9 WALL PACK







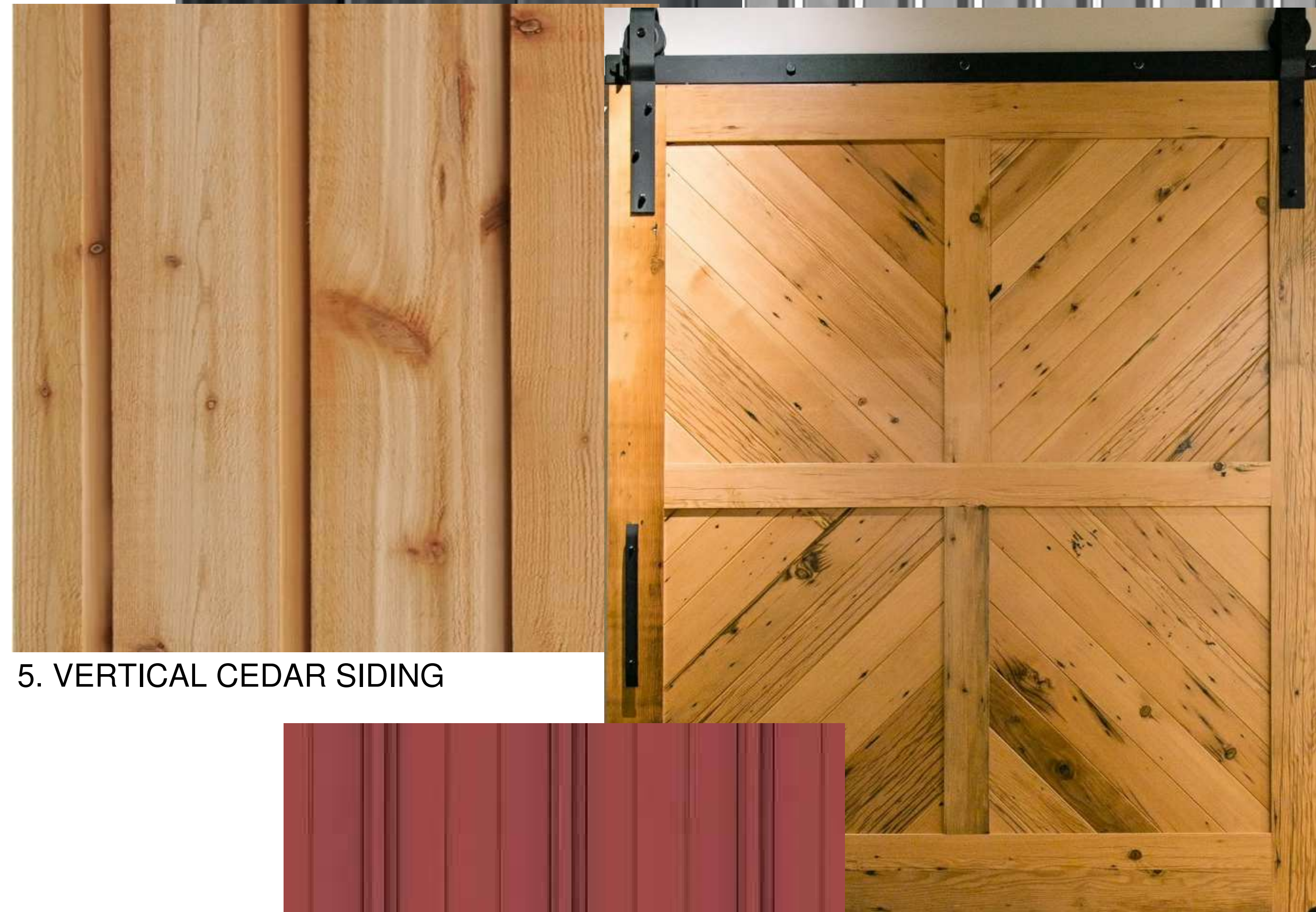
1. CHARCOAL STADING
SEAM ROOF AND SIDING



2. LIGHT GRAY CORRUGATED METAL
SIDING WITH EXPOSED FASTENERS

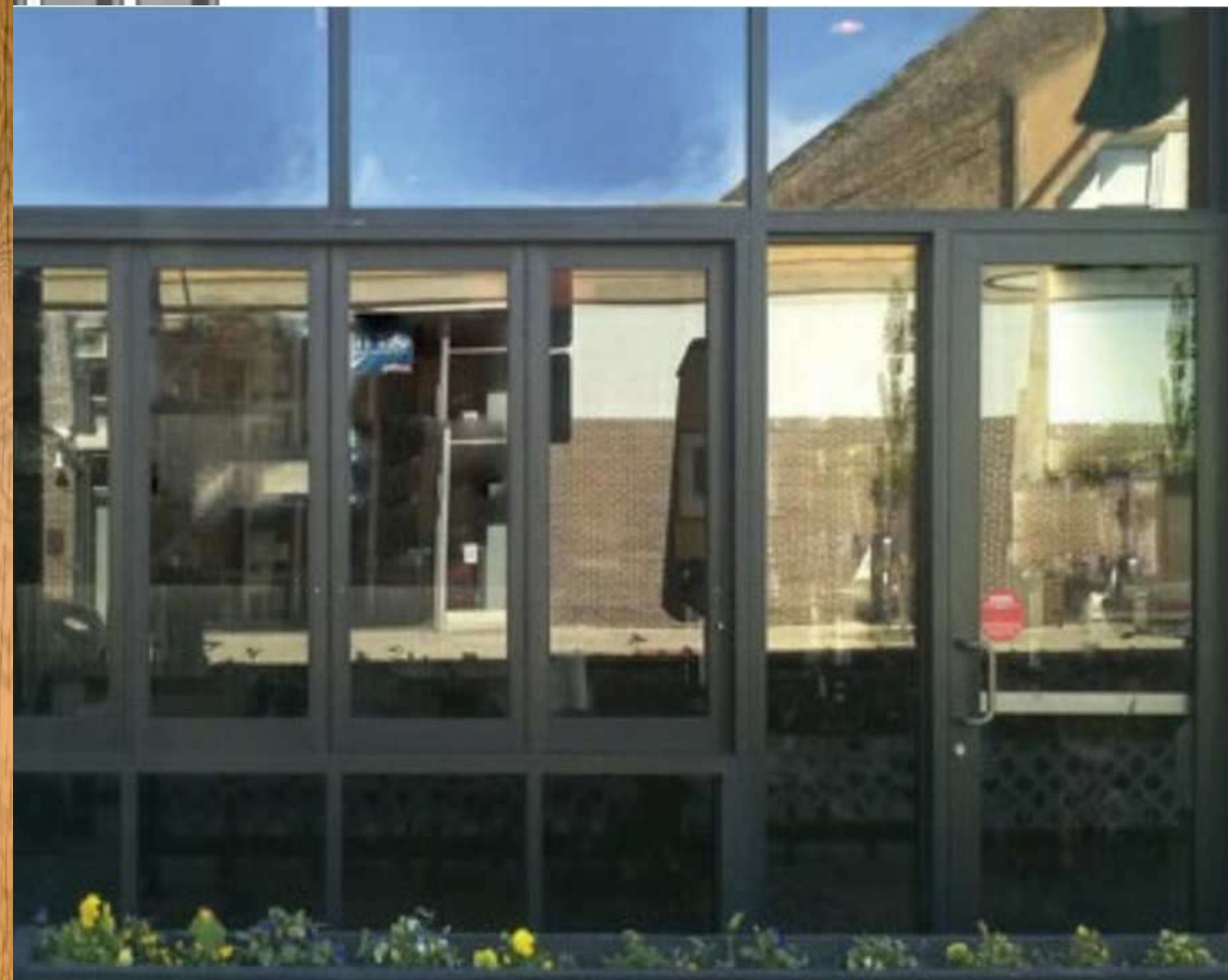


SOUTH PERSPECTIVE

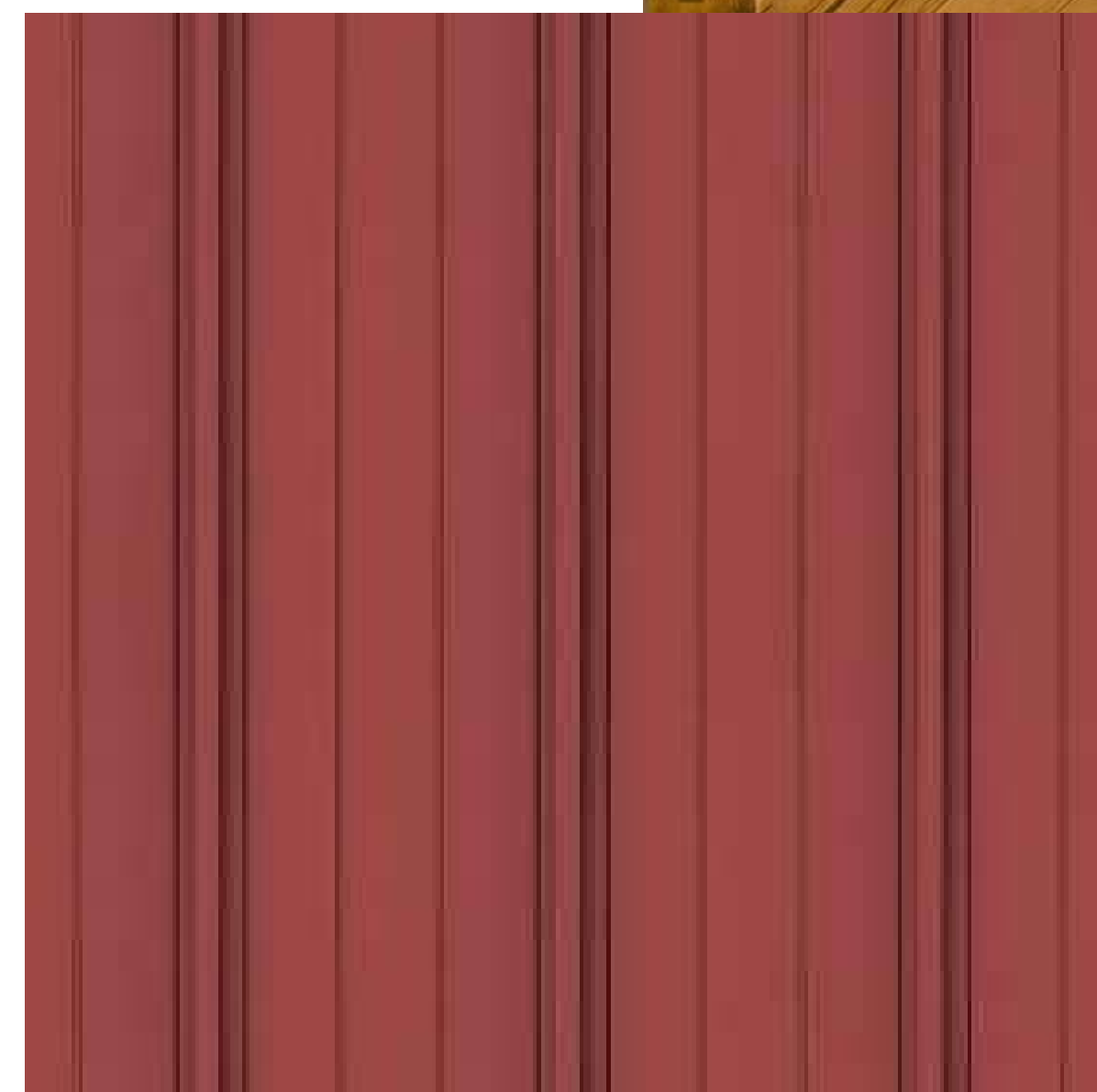


5. VERTICAL CEDAR SIDING

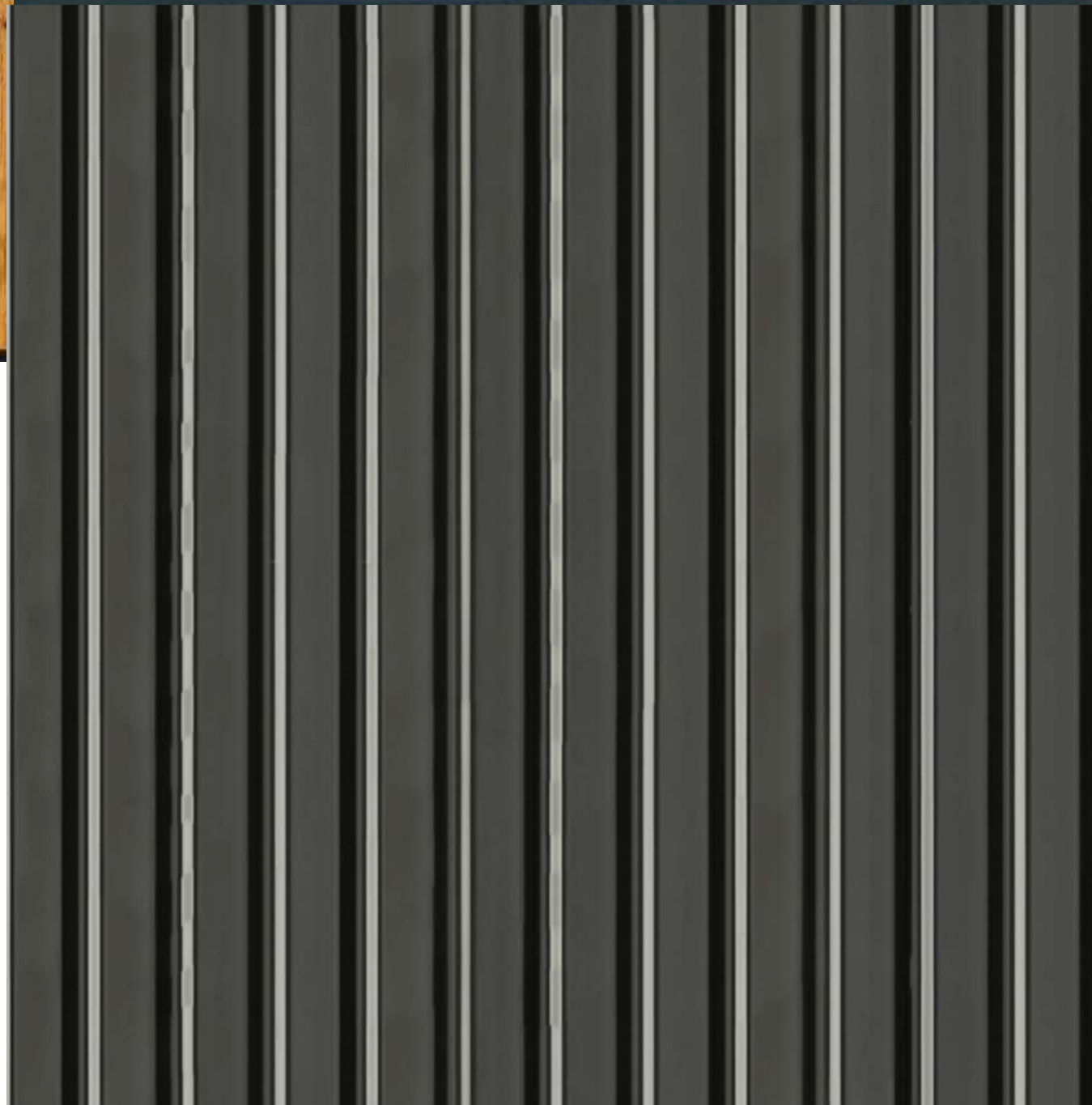
4. WOOD BARN DOOR



CHARCOAL / DARK BRONZE FRAME
ALUMINUM STOREFRONT



3. BARN RED CORREGATED SIDING



6. MEDIUM GREY CORRUGATED METAL
ROOF WITH EXPOSED FASTENERS

Parcel	Physical Address
239333100008	760 133 HWY CARBONDALE
239333100038	1493 106 COUNTY RD CARBONDALE
239333137001	740 133 HWY CARBONDALE
239333139001	768 133 HWY CARBONDALE
239333139002	774 133 HWY CARBONDALE
239333139003	780 133 HWY CARBONDALE
239333139004	786 133 HWY CARBONDALE
239333139005	792 133 HWY CARBONDALE
239333139007	133 HWY CARBONDALE
239333148001	133 HWY CARBONDALE
239333153004	901 133 HWY CARBONDALE
239333153006	Not available null
239333153007	Not available null
239333453002	905 133 HWY CARBONDALE

Owner	Account Num
ROARING FORK VALLEY CO-OP	R090129
COLORADO ROCKY MOUNTAIN SCHOOL	R084066
FERGUSON ENTERPRISES INC	R005703
K CUATRO LLC	R007858
K CUATRO LLC	R007859
K CUATRO LLC	R007860
K CUATRO LLC	R007861
K CUATRO LLC	R007862
RED ROCK PLAZA CONDOMINIUM ASSOCAITION	R007864
CARBONDALE COMMERCIAL SERVICES, INC	R043630
CRYSTAL RIVER MARKETPLACE LLC	R084077
CRYSTAL RIVER MARKETPLACE LLC	R084103
FIRSTBANK	R084104
DILLON REAL ESTATE CO INC	R084076

Mailing Address

760 HIGHWAY 133 CARBONDALE, CO 81623-1540

1493 COUNTY ROAD 106 CARBONDALE, CO 81623-2357

12500 JEFFERSON AVENUE NEWPORT NEWS, VA 23602

PO BOX 2412 ASPEN, CO 81612

PO BOX 2412 ASPEN, CO 81612

PO BOX 2412 ASPEN, CO 81612

PO BOX 2412 ASPEN, CO 81612

PO BOX 2412 ASPEN, CO 81612

804 HIGHWAY 133 CARBONDALE, CO 81623

1117 VILLAGE ROAD CARBONDALE, CO 81623

813 LAKESIDE DRIVE CARBONDALE, CO 81623

813 LAKESIDE DRIVE CARBONDALE, CO 81623

12345 WEST COLFAX AVENUE DENVER, CO 80215

1014 VINE STREET, 7 FLOOR CINCINNATI, OH 45202



TITLE COMPANY
of the rockies

1620 Grand Avenue
Bldg Main Floor 1
Glenwood Springs, CO 81601
Phone: 970-945-1169 Fax: 844-269-2759
www.titlecorockies.com

Commitment Ordered By:

Briston Peterson
Briston Peterson
email: briston@brikor.com

Inquiries should be directed to:

Mary Scheurich
Title Company of the Rockies
1620 Grand Avenue
Bldg Main Floor 1
Glenwood Springs, CO 81601
Phone: 970-945-1169 Fax: 844-269-2759
email: MScheurich@titlecorockies.com

Commitment Number:

0602319 - C2

Buyer's Name(s):

ProBuild Company LLC, a Delaware limited liability company

Seller's Name(s):

Crystal River Marketplace LLC, a Colorado limited liability company

Property:

TBD Carbondale Marketplace, Carbondale, CO 81623
Subdivision: CARBONDALE MARKETPLACE SUBDIVISION Lot: 5C AS PER SECOND
AMENDED PLAT RECEPTION NUMBER _____, Garfield County, Colorado

TITLE CHARGES

These charges are based on issuance of the policy or policies described in the attached Commitment for Title Insurance, and includes premiums for the proposed coverage amount(s) and endorsement(s) referred to therein, and may also include additional work and/or third party charges related thereto.

If applicable, the designation of "Buyer" and "Seller" shown below may be based on traditional settlement practices in Garfield County, Colorado, and/or certain terms of any contract, or other information provided with the Application for Title Insurance.

Owner's Policy Premium:	\$5,394.00
Loan Policy Premium:	\$0.00
Additional Lender Charge(s):	
Additional Other Charge(s):	
Tax Certificate:	\$25.00
Total Endorsement Charge(s):	\$75.00
TBD Charge(s):	

TOTAL CHARGES:	\$5,494.00
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**ALTA Commitment For Title Insurance
(Adopted 06-17-06) (Revised 08-01-2016)**

**COMMITMENT FOR TITLE INSURANCE
ISSUED BY
WESTCOR LAND TITLE INSURANCE COMPANY**

NOTICE

IMPORTANT-READ CAREFULLY: THIS COMMITMENT IS AN OFFER TO ISSUE ONE OR MORE TITLE INSURANCE POLICIES. ALL CLAIMS OR REMEDIES SOUGHT AGAINST THE COMPANY INVOLVING THE CONTENT OF THIS COMMITMENT OR THE POLICY MUST BE BASED SOLELY IN CONTRACT.

THIS COMMITMENT IS NOT AN ABSTRACT OF TITLE, REPORT OF THE CONDITION OF TITLE, LEGAL OPINION, OPINION OF TITLE, OR OTHER REPRESENTATION OF THE STATUS OF TITLE. THE PROCEDURES USED BY THE COMPANY TO DETERMINE INSURABILITY OF THE TITLE, INCLUDING ANY SEARCH AND EXAMINATION, ARE PROPRIETARY TO THE COMPANY, WERE PERFORMED SOLELY FOR THE BENEFIT OF THE COMPANY, AND CREATE NO EXTRACONTRACTUAL LIABILITY TO ANY PERSON, INCLUDING A PROPOSED INSURED.

THE COMPANY'S OBLIGATION UNDER THIS COMMITMENT IS TO ISSUE A POLICY TO A PROPOSED INSURED IDENTIFIED IN SCHEDULE A IN ACCORDANCE WITH THE TERMS AND PROVISIONS OF THIS COMMITMENT. THE COMPANY HAS NO LIABILITY OR OBLIGATION INVOLVING THE CONTENT OF THIS COMMITMENT TO ANY OTHER PERSON.

COMMITMENT TO ISSUE POLICY

Subject to the Notice; Schedule B, Part I-Requirements; Schedule B, Part II-Exceptions; and the Commitment Conditions, WESTCOR LAND TITLE INSURANCE COMPANY, a South Carolina Corporation (the "Company"), commits to issue the Policy according to the terms and provisions of this Commitment. This Commitment is effective as of the Commitment Date shown in Schedule A for each Policy described in Schedule A, only when the Company has entered in Schedule A both the specified dollar amount as the Proposed Policy Amount and the name of the Proposed Insured.

If all of the Schedule B, Part I-Requirements have not been met within six (6) months after the Commitment Date, this Commitment terminates and the Company's liability and obligation end.

IN WITNESS WHEREOF, WESTCOR LAND TITLE INSURANCE COMPANY has caused its corporate name and seal to be hereunto affixed and by these presents to be signed in facsimile under authority of its by-laws, effective as of the date of Commitment shown in Schedule A.

Issued By:



The Title Company of the Rockies
1620 Grand Avenue Bldg Main, Floor 1
Glenwood Springs, CO 81601
Phone: 970-945-1169

WESTCOR LAND TITLE INSURANCE COMPANY



By:

Mary O'Donnell

President

Attest:

[Signature]

Secretary

CONDITIONS

1. The term mortgage, when used herein, shall include deed of trust, trust deed, or other security instrument.
2. If the proposed Insured has or acquired actual knowledge of any defect, lien, encumbrance, adverse claim or other matter affecting the estate or interest or mortgage thereon covered by this Commitment other than those shown in Schedule B hereof, and shall fail to disclose such knowledge to the Company in writing, the Company shall be relieved from liability for any loss or damage resulting from any act of reliance hereon to the extent the Company is prejudiced by failure to so disclose such knowledge. If the proposed Insured shall disclose such knowledge to the Company, or if the Company otherwise acquires actual knowledge of any such defect, lien, encumbrance, adverse claim or other matter, the Company at its option may amend Schedule B of this Commitment accordingly, but such amendment shall not relieve the Company from liability previously incurred pursuant to paragraph 3 of these Conditions and Stipulations.
3. Liability of the Company under this Commitment shall be only to the named proposed Insured and such parties included under the definition of Insured in the form of policy or policies committed for and only for actual loss incurred in reliance hereon in undertaking in good faith (a) to comply with the requirements hereof, or (b) to eliminate exceptions shown in Schedule B, or (c) to acquire or create the estate or interest or mortgage thereon covered by this Commitment. In no event shall such liability exceed the amount stated in Schedule A for the policy or policies committed for and such liability is subject to the insuring provisions and Conditions and Stipulations and the Exclusions from Coverage of the form of policy or policies committed for in favor of the proposed Insured which are hereby incorporated by reference and are made a part of this Commitment except as expressly modified herein.
4. This Commitment is a contract to issue one or more title insurance policies and is not an abstract of title or a report of the condition of title. Any action or actions or rights of action that the proposed Insured may have or may bring against the Company arising out of the status of the title to the estate or interest or the status of the mortgage thereon covered by this Commitment must be based on and are subject to the provisions of this Commitment.
5. *The policy to be issued contains an arbitration clause. All arbitrable matters when the Amount of Insurance is \$2,000,000 or less shall be arbitrated at the option of either the Company or the Insured as the exclusive remedy of the parties. You may review a copy of the arbitration rules at < <http://www.alta.org/>>.*

Joint Notice of Privacy Policy
of
Westcor Land Title Insurance Company
and
The Title Company of the Rockies

Westcor Land Title Insurance Company ("WLTIC") and **The Title Company of the Rockies** value their customers and are committed to protecting the privacy of personal information. In keeping with that philosophy, we each have developed a Privacy Policy, set out below, that will endure the continued protection of your nonpublic personal information and inform you about the measures WLTIC and **The Title Company of the Rockies** take to safeguard that information. This notice is issued jointly as a means of paperwork reduction and is not intended to create a joint privacy policy. Each company's privacy policy is separately instituted, executed, and maintained.

Who is Covered

We provide our Privacy Policy to each customer when they purchase a WLTIC title insurance policy. Generally, this means that the Privacy Policy is provided to the customer at the closing of the real estate transaction.

Information Collected

In the normal course of business and to provide the necessary services to our customers, we may obtain nonpublic personal information directly from the customer, from customer-related transactions, or from third parties such as our title insurance agent, lenders, appraisers, surveyors and other similar entities.

Access to Information

Access to all nonpublic personal information is limited to those employees who have a need to know in order to perform their jobs. These employees include, but are not limited to, those in departments such as closing, legal, underwriting, claims and administration and accounting.

Information Sharing

Generally, neither WLTIC nor **The Title Company of the Rockies** shares nonpublic personal information that it collects with anyone other than those individuals necessary needed to complete the real estate settlement services and issue its title insurance policy as requested by the consumer. WLTIC or **The Title Company of the Rockies** may share nonpublic personal information as permitted by law with entities with whom WLTIC or **The Title Company of the Rockies** has a joint marketing agreement. Entities with whom WLTIC or **The Title Company of the Rockies** have a joint marketing agreement have agreed to protect the privacy of our customer's nonpublic personal information by utilizing similar precautions and security measures as WLTIC and **The Title Company of the Rockies** use to protect this information and to use the information for lawful purposes. WLTIC or **The Title Company of the Rockies**, however, may share information as required by law in response to a subpoena, to a government regulatory agency or to prevent fraud.

Information Security

WLTIC and **The Title Company of the Rockies**, at all times, strive to maintain the confidentiality and integrity of the personal information in its possession and has instituted measures to guard against its unauthorized access. We maintain physical, electronic and procedural safeguards in compliance with federal standards to protect that information.

The WLTIC Privacy Policy can be found on WLTIC's website at www.wltic.com

COMMITMENT FOR TITLE INSURANCE

Issued by



as agent for

Westcor Land Title Insurance Company

SCHEDULE A

Reference:

Commitment Number: 0602319 - C2

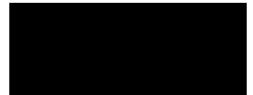
1. Effective Date: **March 06, 2020, 7:00 am** Issue Date: **March 10, 2020**

2. Policy (or Policies) to be issued:

ALTA Owner's Policy (6-17-06)

Policy Amount:

Premium:



Proposed Insured: **ProBuild Company LLC, a Delaware limited liability company**

3. The estate or interest in the land described or referred to in this Commitment is **Fee Simple**.

4. The Title is, at the Commitment Date, vested in:

Crystal River Marketplace LLC, a Colorado limited liability company

5. The land referred to in this Commitment is described as follows:

FOR LEGAL DESCRIPTION SEE SCHEDULE A CONTINUED ON NEXT PAGE

Countersigned

The Title Company of the Rockies

By:

A handwritten signature in black ink, appearing to read "Susan Sarver".

Susan Sarver

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SCHEDULE A (continued)

LEGAL DESCRIPTION

The Land referred to herein is located in the County of **Garfield**, State of **Colorado**, and described as follows:

Lot 5C,
SECOND AMENDED PLAT OF LOT 5, CARBONDALE MARKETPLACE SUBDIVISION,
according to the Plat recorded _____, 2020 as Reception No. _____.

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COMMITMENT FOR TITLE INSURANCE

Issued by

Westcor Land Title Insurance Company

SCHEDULE B, PART I Requirements

The following are the requirements to be complied with prior to the issuance of said policy or policies. Any other instrument recorded subsequent to the effective date hereof may appear as an exception under Schedule B of the policy to be issued. Unless otherwise noted, all documents must be recorded in the office of the clerk and recorded of the county in which said property is located.

All of the following Requirements must be met:

1. The Proposed Insured must notify the Company in writing of the name of any party not referred to in this Commitment who will obtain an interest in the Land or who will make a loan on the Land. The Company may then make additional Requirements or Exceptions.
2. Pay the agreed amount for the estate or interest to be insured.
3. Pay the premiums, fees, and charges for the Policy to the Company.
4. Documents satisfactory to the Company that convey the Title or create the Mortgage to be insured, or both, must be properly authorized, executed, delivered, and recorded in the Public Records.
5. Evidence satisfactory to the Company or its duly authorized agent that all dues and/or assessments levied by the Homeowners Association have been paid through the date of closing.
6. Partial release by the Public Trustee of Garfield County of the Deed of Trust from Crystal River Marketplace, LLC for the use of ANB Bank, to secure [REDACTED] dated December 4, 2018, and recorded December 7, 2018 as [Reception No. 915008](#).

NOTE: Assignment of Rents recorded December 7, 2018 as [Reception No. 915009](#), given in connection with the above Deed of Trust.

NOTE: Subordination Agreement recorded December 18, 2019 as [Reception No. 929671](#), given in connection with the above Deed of Trust.

7. Release by the Public Trustee of Garfield County of the Deed of Trust from Crystal River Marketplace, LLC for the use of ANB Bank, to secure \$1,111,198.00, dated March 18, 2019, and

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recorded April 8, 2019 as [Reception No. 918984](#).

8. Release by the Public Trustee of Garfield County of the Deed of Trust from Crystal River Marketplace, LLC for the use of ANB Bank, to secure [REDACTED] dated December 11, 2019, and recorded December 18, 2019 as [Reception No. 929669](#).

NOTE: Assignment of Rents recorded December 18, 2019 as [Reception No. 929670](#), given in connection with the above Deed of Trust.

9. Statement of Authority for Crystal River Marketplace, LLC, a Colorado limited liability company, recorded February 28, 2018 as [Reception No. 903697](#), discloses that the names and addresses of the manager(s) or member(s) authorized to act on behalf of the limited liability company are as follows:
10. Articles of Organization for ProBuild Company, LLC, a Delaware limited liability company, disclosing the names of all Managers of said limited liability company and otherwise complying with C.R.S. 7-80-101, et seq., as amended, and evidencing the existence of said limited liability company prior to the time it acquires title to subject property, must be filed in the office of the Secretary of State for the State of Delaware, but need not be recorded.
11. Resolution or Statement of Authority by ProBuild Company, LLC, a Delaware limited liability company, authorizing the transaction, executed by the managers or members set forth in the Operating Agreement.

NOTE: Review Operating Agreement for authority of party(ies) to act on behalf of said limited liability company and complete the transaction contemplated herein.

12. Record Second Amended Plat of Lot 5, Carbondale Marketplace Subdivision, to create Lot 5C, as a separate Legal Parcel.
13. Deed from Crystal River Marketplace LLC, a Colorado limited liability company to ProBuild Company LLC, a Delaware limited liability company.

NOTE: Duly executed real property transfer declaration, executed by either the Grantor or Grantee, to accompany the Deed mentioned above, pursuant to Article 14 of House Bill No. 1288-CRA 39-14-102.

The Owner's Policy, when issued, will not contain Exceptions No. 1, 2, 3 and 4 provided that:

(A) The enclosed form, of indemnity agreement or final affidavit and agreement is properly executed and acknowledged by the party(ies) indicated and returned to the Company or its duly authorized agent, and

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(B) The applicable scheduled charges in the amount of \$75.00, are paid to the Company or its duly authorized agent.

24-month Chain of Title: The only conveyance(s) affecting said land recorded within the 24 months preceding the date of this commitment is (are) as follows:

WARRANTY DEED recorded September 20, 2010 as **Reception No. 791643**.

WARRANTY DEED recorded October 17, 2007 as **Reception No. 735368**.

NOTE: If no conveyances were found in that 24 month period, the last recorded conveyance is reported. If the subject land is a lot in a subdivision plat less than 24 months old, only the conveyances subsequent to the plat are reported.

EXCEPTION NO. 5 UNDER SCHEDULE B, SECTION 2 OF THIS COMMITMENT WILL NOT APPEAR IN THE POLICY OR POLICIES TO BE ISSUED PURSUANT HERETO, PROVIDED THAT (A) THE DOCUMENTS CONTEMPLATED BY THE REQUIREMENTS SET FORTH IN SCHEDULE B, SECTION 1 OF THIS COMMITMENT ARE SUBMITTED TO AND APPROVED AND RECORDED BY THE COMPANY OR ITS DULY AUTHORIZED AGENT, AND (B) AN EXAMINATION OF THE RECORDS IN THE OFFICE OF THE CLERK AND RECORDER FOR GARFIELD COUNTY, COLORADO BY THE COMPANY OR ITS DULY AUTHORIZED AGENT DISCLOSES THAT NO DEFECTS, LIENS, ENCUMBRANCES, ADVERSE CLAIMS OR OTHER MATTERS HAVE BEEN RECORDED IN SUCH RECORDS SUBSEQUENT TO THE EFFECTIVE DATE HEREOF.

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SCHEDULE B, PART II

Exceptions

THIS COMMITMENT DOES NOT REPUBLISH ANY COVENANT, CONDITION, RESTRICTION, OR LIMITATION CONTAINED IN ANY DOCUMENT REFERRED TO IN THIS COMMITMENT TO THE EXTENT THAT THE SPECIFIC COVENANT, CONDITION, RESTRICTION, OR LIMITATION VIOLATES STATE OR FEDERAL LAW BASED ON RACE, COLOR, RELIGION, SEX, SEXUAL ORIENTATION, GENDER IDENTITY, HANDICAP, FAMILIAL STATUS, OR NATIONAL ORIGIN.

Schedule B of the policy or policies to be issued will contain exceptions to the following matters unless the same are disposed of to the satisfaction of the Company.

Any loss or damage, including attorney fees, by reason of the matters shown below:

1. Any facts, right, interests, or claims which are not shown by the Public Records but which could be ascertained by an inspection of said Land or by making inquiry of persons in possession thereof.
2. Easements or claims of easements, not shown by the Public Records.
3. Any encroachment, encumbrance, violation, variation, or adverse circumstance affecting the Title that would be disclosed by an accurate and complete land survey of the Land.
4. Any lien, or right to a lien for services, labor or material heretofore or hereafter furnished, imposed by law and not shown by the Public Records.
5. Defects, liens, encumbrances, adverse claims or other matters, if any created, first appearing in the Public Records or attaching subsequent to the effective date hereof, but prior to the date of the proposed insured acquires of record for value the estate or interest or mortgage thereon covered by this Commitment.
6. (a) Taxes or assessments that are not shown as existing liens by the records of any taxing authority that levies taxes or assessments on real property or by the Public Records; (b) proceedings by a public agency that may result in taxes or assessments, or notices of such proceedings, whether or not shown by the records of such agency or by the Public Records.
7. Right of the Proprietor of a vein or lode to extract and remove his ore therefrom, should the same be found to penetrate or intersect the premises hereby granted, as reserved in United States Patent recorded April 3, 1892, in [Book 12 at Page 126](#).
8. Terms, agreements, provisions, conditions and obligations as contained in Agreement recorded

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- May 22, 1906 in [Book 51 at Page 520](#).
9. Terms, agreements, provisions, conditions and obligations of easement and right of way as contained in instrument recorded May 23, 1923, in [Book 117 at Page 582](#).
 10. An undivided one-half (1/2) interest in oil, gas and other mineral rights, as reserved in instrument recorded February 28, 1948, in [Book 234 at Page 330](#), and any and all assignments thereof or interests therein.
 11. Restrictions, which do not contain a forfeiture or reverter clause, as contained in instrument recorded February 28, 1948, in [Book 234 at Page 330](#).
 12. All oil, gas and other mineral rights, as reserved in instrument recorded July 22, 1952, in [Book 265 at Page 132](#), and any and all assignments thereof or interests therein.
 13. Easements and rights of way granted to Public Service Company of Colorado by instrument recorded September 22, 1961, in [Book 337 at Page 10](#).
 14. Terms, agreements, provisions, conditions and obligations as contained in Ordinance No. 11 recorded May 22, 1979, in [Book 528 at Page 828](#).
 15. Easements, rights of way and all other matters as shown on the Plat of Colorado Rocky Mountain School Subdivision Exemption, filed March 13, 1998, at [Reception No. 521824](#).
 16. Terms, agreements, provisions, conditions and obligations as contained in Water Drainage and Detention Easement Agreement recorded March 26, 2003, in [Book 1451 at Page 95](#).
 17. Terms, agreements, provisions, conditions and obligations as contained in Ordinance No. 5, Series of 2010 recorded September 16, 2010, at [Reception No. 791486](#).
 18. Easements, rights of way and all other matters as shown on the Plat of Lot Line Adjustment of Crystal River Marketplace, LLC and CRMS Properties, filed September 16, 2010, at [Reception No. 791487](#).
 19. Terms, agreements, provisions, conditions and obligations as contained in Ordinance No. 58, Series of 2016 recorded February 27, 2018 at [Reception No. 903650](#).
 20. Easements, rights of way and all other matters as shown on the Plat of Carbondale Marketplace Subdivision, filed February 28, 2018 at [Reception No. 903693](#).
 21. Terms, agreements, provisions, conditions and obligations as contained in Subdivision Improvements Agreement recorded February 28, 2018 at [Reception No. 903695](#).

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22. Easement and right of way for public water, sanitary sewer and public utilities purposes, as granted by Crystal River MarketPlace LLC to The Town of Carbondale, Colorado, by instrument recorded February 28, 2018 at [Reception No. 903700](#), said easement being more particularly described therein.
23. Terms, agreements, provisions, conditions and obligations as contained in Reciprocal Easement Agreement recorded February 28, 2018 at [Reception No. 903701](#).
24. Terms, agreements, provisions, conditions and obligations as contained in Memorandum of Site Development Construction Agreement recorded February 28, 2018 at [Reception No. 903702](#).
25. Easements, rights of way and all other matters as shown on the Plat of Amended Plat of Lot 5, filed May 25, 2018 at [Reception No. 907183](#).
26. Terms, agreements, provisions, conditions and obligations as contained in Ordinance No. 7, Series of 2017 recorded May 25, 2018 at [Reception No. 907185](#) and at [Reception No. 907186](#).
27. Terms, agreements, provisions, conditions and obligations as contained in Subdivision Improvements Agreement recorded May 25, 2018 at [Reception No. 907187](#).
28. Terms, agreements, provisions, conditions and obligations as contained in Declaration of Restricted Use Covenants, recorded December 21, 2018 as [Reception No. 915593](#).
29. Terms, agreements, provisions, conditions and obligations as contained in Easement Deed and Agreement, recorded December 10, 2019 as [Reception No. 929341](#).
30. Easements and rights of way and all other matters as shown on the Plat of Second Amended Plat of Lot 5, of Carbondale Marketplace Subdivision, recorded _____, 2020 as Reception No. _____.

This page is only a part of a 2016 ALTA® Commitment for Title Insurance issued by Westcor Land Title Insurance Company. This Commitment is not valid without the Notice; the Commitment to Issue Policy; the Commitment Conditions; Schedule A; Schedule B, Part I-Requirements; and Schedule B, Part II-Exceptions.

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DISCLOSURE STATEMENTS

Note 1: Colorado Division of Insurance Regulations 3-5-1, Paragraph C of Article VII, requires that "Every Title entity shall be responsible for all matters which appear of record prior to the time of recording whenever the Title entity conducts the closing and is responsible for recording or filing of legal documents resulting from the transaction which was closed." (Gap Protection)

Note 2: Exception No. 4 of Schedule B, Section 2 of this Commitment may be deleted from the Owner's Policy to be issued hereunder upon compliance with the following conditions:

1. The Land described in Schedule A of this commitment must be a single-family residence, which includes a condominium or townhouse unit.
2. No labor or materials may have been furnished by mechanics or materialmen for purpose of construction on the Land described in Schedule A of this Commitment within the past 13 months.
3. The Company must receive an appropriate affidavit indemnifying the Company against unfiled mechanic's and materialmen's liens.
4. Any deviation from conditions A through C above is subject to such additional requirements or Information as the Company may deem necessary, or, at its option, the Company may refuse to delete the exception.
5. Payment of the premium for said coverage.

Note 3: The following disclosures are hereby made pursuant to §10-11-122, C.R.S.:

- (i) The subject real property may be located in a special taxing district;
- (ii) A certificate of taxes due listing each taxing jurisdiction shall be obtained from the County Treasurer or the County Treasurer's authorized agent; and
- (iii) Information regarding special districts and the boundaries of such districts may be obtained from the County Commissioners, the County Clerk and Recorder, or the County Assessor.

Note 4: If the sales price of the subject property exceeds \$100,000.00, the seller shall be required to comply with the disclosure or withholding provisions of C.R.S. §39-22-604.5 (Non-resident withholding).

Note 5: Pursuant to C.R.S. §10-11-123 Notice is hereby given:

- (a) If there is recorded evidence that a mineral estate has been severed, leased or otherwise conveyed from the surface estate then there is a substantial likelihood that a third party holds some or all interest in oil, gas, other minerals, or geothermal energy in the property, and
- (b) That such mineral estate may include the right to enter and use the property without the surface owner's permission.

Note 6: Effective September 1, 1997, C.R.S. §30-10-406 requires that all documents received for recording or filing in the clerk and recorder's office shall contain a top margin of at least one inch and a left, right and bottom margin of at least one-half inch the clerk and recorder may refuse to record or file any document that does not conform.

Note 7: Our Privacy Policy:

We will not reveal nonpublic personal customer information to any external non-affiliated organization unless we have been authorized by the customer, or are required by law.

Note 8: Records:

Regulation 3-5-1 Section 7 (N) provides that each title entity shall maintain adequate documentation and records sufficient to show compliance with this regulation and Title 10 of the Colorado Revised Statutes for a period of not less than seven (7) years, except as otherwise permitted by law.

Note 9: Pursuant Regulation 3-5-1 Section 9 (F) notice is hereby given that "A title entity shall not earn interest on fiduciary funds unless disclosure is made to all necessary parties to a transaction that interest is or has been earned. Said disclosure must offer the opportunity to receive payment of any interest earned on such funds beyond any administrative fees as may be on file with the division. Said disclosure must be clear and conspicuous, and may be made at any time up to and including closing."

Be advised that the closing agent will or could charge an Administrative Fee for processing such an additional services request and any resulting payee will also be subjected to a W-9 or other required tax documentation for such

purpose(s).

Be further advised that, for many transactions, the imposed Administrative Fee associated with such an additional service may exceed any such interest earned.

Therefore, you may have the right to some of the interest earned over and above the Administrative Fee, if applicable (e.g., any money over any administrative fees involved in figuring the amounts earned).

Note 10: Pursuant to Regulation 3-5-1 Section 9 (G) notice is hereby given that “Until a title entity receives written instructions pertaining to the holding of fiduciary funds, in a form agreeable to the title entity, it shall comply with the following:

1. The title entity shall deposit funds into an escrow, trust, or other fiduciary account and hold them in a fiduciary capacity.
2. The title entity shall use any funds designated as “earnest money” for the consummation of the transaction as evidenced by the contract to buy and sell real estate applicable to said transaction, except as otherwise provided in this section. If the transaction does not close, the title entity shall:
 - (a) Release the earnest money funds as directed by written instructions signed by both the buyer and seller; or
 - (b) If acceptable written instructions are not received, uncontested funds shall be held by the title entity for 180 days from the scheduled date of closing, after which the title entity shall return said funds to the payor.
3. In the event of any controversy regarding the funds held by the title entity (notwithstanding any termination of the contract), the title entity shall not be required to take any action unless and until such controversy is resolved. At its option and discretion, the title entity may:
 - (a) Await any proceeding; or
 - (b) Interplead all parties and deposit such funds into a court of competent jurisdiction, and recover court costs and reasonable attorney and legal fees; or
 - (c) Deliver written notice to the buyer and seller that unless the title entity receives a copy of a summons and complaint or claim (between buyer and seller), containing the case number of the lawsuit or lawsuits, within 120 days of the title entity's written notice delivered to the parties, title entity shall return the funds to the depositing party.”

Title Company of the Rockies

Disclosures

All documents received for recording or filing in the Clerk and Recorder's office shall contain a top margin of at least one inch and a left, right and bottom margin of at least one half of an inch. The Clerk and Recorder will refuse to record or file any document that does not conform to the requirements of this section. Pursuant to C.R.S. 30-10-406(3)(a).

The company will not issue its policy or policies of title insurance contemplated by this commitment until it has been provided a Certificate of Taxes due or other equivalent documentation from the County Treasurer or the County Treasurer's authorized agent: or until the Proposed Insured has notified or instructed the company in writing to the contrary. Pursuant to C.R.S. 10-11-122.

No person or entity that provides closing and settlement services for a real estate transaction shall disburse funds as a part of such services until those funds have been received and are available for immediate withdrawals as a matter of right. Pursuant to C.R.S. 38-35-125(2).

The Company hereby notifies the proposed buyer in the current transaction that there may be recorded evidence that the mineral estate, or portion thereof, has been severed, leased, or otherwise conveyed from the surface estate. If so, there is a substantial likelihood that a third party holds some or all interest in the oil, gas, other minerals, or geothermal energy in the subject property. Such mineral estate may include the right to enter and use the property without the surface owner's permission. Pursuant to C.R.S. 10-11-123.

If this transaction includes a sale of property and the sales price exceeds \$100,000.00, the seller must comply with the disclosure/withholding requirements of said section. (Nonresident withholding) Pursuant to C.R.S. 39-22-604.5.

Notice is hereby given that: The subject property may be located in a special taxing district. A Certificate of Taxes due listing each taxing jurisdiction shall be obtained from the County Treasurer or the County Treasurer's authorized agent. Information regarding special districts and the boundaries of such districts may be obtained from the Board of County Commissioners, the County Clerk and Recorder, or the County Assessor. Pursuant to C.R.S. 10-11-122.

Notice is hereby given that: Pursuant to Colorado Division of Insurance Regulation 8-1-2;

"Gap Protection" -When this Company conducts the closing and is responsible for recording or filing the legal documents resulting from the transaction, the Company shall be responsible for all matters which appear on the record prior to such time or recording or filing; and

"Mechanic's Lien Protection" - If you are the buyer of a single family residence, you may request mechanic's lien coverage to be issued on your policy of Insurance. If the property being purchased has not been the subject of construction, improvements or repairs in the last six months prior to the date of this commitment, the requirements will be payment of the appropriate premium and the completion of an Affidavit and Indemnity by the seller. If the property being purchased was constructed, improved or repaired within six months prior to the date of this commitment the requirements may involve disclosure of certain financial information, payment of premiums, and indemnity, among others. The general requirements stated above are subject to revision and approval by the Company. Pursuant to C.R.S. 10-11-122.

Notice is hereby given that an ALTA Closing Protection Letter is available, upon request, to certain parties to the transaction as noted in the title commitment. Pursuant to Colorado Division of Insurance Regulation 8-1.

Nothing herein contained will be deemed to obligate the Company to provide any of the coverages referred to herein unless the above conditions are fully satisfied.

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RECIPROCAL EASEMENT AGREEMENT

THIS RECIPROCAL EASEMENT AGREEMENT (this "Agreement") is made as of the 28th day of February 2018, by and between Dillon Real Estate Co., Inc., a Kansas corporation ("City Market"), and Crystal River Marketplace LLC, a Colorado limited liability company ("Developer").

WITNESSETH:

WHEREAS, Developer caused to be recorded in the office of the Garfield County Clerk & Recorder (i) the plat of Carbondale Marketplace Subdivision which was recorded on February 28, 2018 in Book at Page under Reception No. 903693, a copy of which is attached hereto as Exhibit "A" (the "Subdivision Plat"); and (ii) the First Amended Plat of Lots 2 & 4 Carbondale Marketplace Subdivision which was recorded on February 28 2018 in Book at Page under Reception No. 903694, a copy of which is attached hereto as Exhibit "B" (the "Amended Plat"); and together with the Subdivision Plat, the "Plat");

WHEREAS, the Carbondale Marketplace Subdivision (the "Subdivision") is comprised of five (5) Lots, as shown on the Plat;

WHEREAS, City Market is the owner of Lots 2 and 3 of the Subdivision ("Lot 2" and "Lot 3", respectively), and Developer is the owner of Lots 1, 4, and 5 of the Subdivision ("Lot 1", "Lot 4", and "Lot 5", respectively);

WHEREAS, Lot 1, Lot 2, Lot 3, Lot 4, and Lot 5 are sometimes collectively referred to herein as the "Lots" and individually as "Lot"; and

WHEREAS, City Market and Developer desire to enter into this Agreement to provide for the integrated use of the Lots as a shopping center (the "Shopping Center") as said Shopping Center is shown on the Plat.

NOW, THEREFORE, in consideration of the premises, and Ten and 00/100 Dollars (\$10.00), the receipt and sufficiency of which is hereby acknowledged, the parties hereto hereby agree as follows:

ARTICLE I - DEFINITIONS

SECTION 1. The following terms shall be defined as set forth below:

Building Area: The area(s) of the Lots (i) designated on the Plat for buildings or (ii) upon which buildings are expressly permitted under the terms of this Agreement. Subject to the restrictions expressly set forth herein, the Plat may be changed to add, delete or alter Building Area within a Lot by an amendment hereto by the Lot owners as provided in Section 9.1 hereof.

Common Area: The area(s) of the Shopping Center which are not Building Area. Any portion of the Common Area upon which Building Area is expressly permitted under this Agreement,



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including without limitation those areas identified as future Building Area on the Plat, shall be deemed Building Area from and after the commencement of construction of building improvements thereon. Subject to the restrictions expressly set forth herein, the Plat may be changed to add, delete or alter Common Area within a Lot by an amendment hereto by the Lot owners as provided in Section 9.1 hereof.

Ditch Relocation Agreement: That certain Ditch Relocation Agreement dated February 26 2018, 2018 and recorded in the Office of the Garfield County Clerk and Recorder as Reception No. 903703 by and between Developer and Rockford Ditch Association, Inc. (the "Ditch Association") concerning the Rockford Ditch (the "Ditch").

Kroger Entity: The Kroger Co., an Ohio corporation, any subsidiary or affiliate of The Kroger Co., and their respective successors and assigns.

Kroger Party: a Kroger Entity having a legal or equitable interest in a Lot whose name and contact information has been provided to the other Lot owners by City Market or such Kroger Entity.

Pro Rata Share for Shared Feature Expenses: The amount of each of Lot 2, Lot 3, and Lot 4's respective responsibility for the Shared Feature Expenses (as defined in Section 3.3 hereof), expressed as a percentage, based on the size of the Lot in relation to the aggregate size of all of Lot 2, Lot 3, and Lot 4. If any such Lot is subdivided, or if the size of any Lot changes, upon prior written notice to the Lot 2 owner the Pro Rata Share of such Lot for Shared Feature Expenses shall be automatically re-allocated among the subdivided lots or parcels within the Lot, or automatically re-allocated based on the changed lot sizes on the same basis, provided that the Pro Rata Share for Shared Feature Expenses of all Lots originally designed as Lot 2, Lot 3, and Lot 4, as subsequently subdivided or adjusted, must total one hundred percent (100%). As of the date hereof, each Lot's Pro Rata Share for Shared Feature Expenses is:

Lot 2	86.9%
Lot 3	6.2%
Lot 4	6.9%

Pro Rata Share for Shared Irrigation and Ditch Expenses: The amount of each of Lot 1, Lot 2, Lot 3, Lot 4, and Lot 5's respective responsibility for the Shared Irrigation and Ditch Expenses (as defined in Section 3.4 hereof), expressed as a percentage, based on the size of the Lot in relation to the aggregate size of all of Lots 1, 2, 3, 4, and 5. If any such Lot is subdivided, or if the size of any Lot changes, upon prior written notice to the Lot 4 owner the Pro Rata Share of such Lot for Shared Irrigation and Ditch Expenses shall be automatically re-allocated among the subdivided lots or parcels within the Lot, or automatically re-allocated based on the changed lot sizes on the same basis provided that the Pro Rata Share for Shared Irrigation and Ditch Expenses of all Lots, as subsequently subdivided or adjusted, must total one hundred percent (100%). As of the date hereof, each Lot's Pro Rata Share for Shared Irrigation and Ditch Expenses is:

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Lot 1	26.4%
Lot 2	32%
Lot 3	2.3%
Lot 4	2.5%
Lot 5	36.8%

ARTICLE II - EASEMENTS

SECTION 2.1 The parties hereby establish a non-exclusive easement over the Common Area in favor of each Lot to permit unobstructed pedestrian and vehicular passage and parking by the owner thereof and its agents, contractors, employees, tenants, licensees and invitees, provided that nothing herein shall prevent the Lot 1 owner, the Lot 2 owner, the Lot 5 owner, or their respective tenants or licensees from storing bascarts or placing cart corrals on the Common Area, or prevent the owners, tenants or licensees of Lot 1, Lot 2 or Lot 5 from selling merchandise on the Common Area portion of their respective Lots, and further provided that nothing herein shall prevent the exclusive use of any receiving area situated on a servient Lot by the owner thereof or its tenants or licensees.

SECTION 2.2 The parties hereby establish a non-exclusive easement over the Common Area (exclusive of any portion of the Common Area identified as future Building Area on the Plat) in favor of each Lot to permit the construction, maintenance and use of all apparatus necessary to provide utility services to a Lot, including without limitation telephone, electricity, water, Lot Irrigation Lines (as defined in Section 3.4 below), natural gas, storm and sanitary sewers, provided that the same are constructed, installed, maintained and repaired in compliance with all laws, orders, rules and regulations of any governmental or private authority having jurisdiction over same, including without limitation the requirements of any utility companies, and are constructed underground. The dominant Lot owner, in order to exercise its easement rights under this Section 2.2, must obtain the servient Lot owner's approval of the plans and specifications for and the location of the utility facilities the dominant Lot owner intends to install on the servient Lot, which approval shall not be unreasonably withheld, delayed or conditioned. The dominant Lot owner shall use reasonable efforts to minimize any disruption or demolition of a servient Lot by reason of the use of this easement, and work by the dominant Lot owner pursuant to this easement shall not exceed one (1) day in duration except during the period when the Shopping Center is initially constructed, unless such disruption or demolition cannot be reasonably completed within such one (1) day period, in which event the period will be extended to such time period as reasonably is required and such area forthwith shall be restored as quickly as reasonably possible by the dominant Lot owner to its original condition at no expense to the servient Lot owner.

SECTION 2.3 The parties hereby establish a non-exclusive easement over each Lot in favor of the other Lots to permit the temporary occupation of the servient Lot in order to facilitate the construction or maintenance of the improvements on the dominant Lot, provided that the dominant Lot owner shall use reasonable efforts to not interfere with the construction or operation of the improvements on the servient Lot.

SECTION 2.4 City Market and Developer each hereby establish an non-exclusive easement over all of the Lots in favor of all of the other Lots to permit the construction, use and maintenance of



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sign(s) at the location(s) designated on Exhibit "C" attached hereto, including any electrical lines required to illuminate the sign(s), provided that all lines are constructed underground. In the event the easement created by this Section 2.4 is located on property taken by condemnation or by conveyance made in anticipation or in lieu of an actual taking, the easement area shall be relocated to an area on the affected Lot reasonably acceptable to said Lot owner. No sign located on a Lot shall be positioned so as to unreasonably obstruct any signs erected pursuant to this Section 2.4 from view from the public rights of way adjacent thereto.

SECTION 2.5 The parties hereby establish a non-exclusive underground utility easement under Lot 3 for the benefit of any one of Lot 1, Lot 5, or that certain property known as 1337 Main Street that is legally described on Exhibit "D" attached hereto ("1337 Main") for construction, use, maintenance, repair and replacement of subsurface utility lines to enable customers of a car wash located on Lot 1, Lot 5, or 1337 Main (but only one of such parcels) to pay for car washes via a point of sale terminal/kiosk on Lot 3. The location of said easement on Lot 3 shall be subject to the prior written approval of the owner of Lot 3 upon review of plans and specifications for such utility facilities, such approval not to be unreasonably withheld, conditioned or delayed. The location of the point of sale terminal/kiosk may be incorporated within, or in the vicinity of, self-serve fuel pumping stations on Lot 3, and the terms of the point of sale agreement shall be subject to the mutual written approval of the owner of Lot 3, on one hand, and the owner of Lot 1, Lot 5, or 1337 Main, on the other hand, as the case may be.

SECTION 2.6 The dominant Lot owner shall indemnify, defend and hold harmless the other Lot owners and their tenants and licensees from all claims, liens, damages and expenses, including without limitation reasonable attorneys' fees, arising out of its use of any of the easements established in this Article II.

SECTION 2.7 Nothing herein shall create a gift or dedication to the public of, or otherwise create any rights of the public in, any portion of the Shopping Center. The Lot owners agree that public ingress and egress to and within the Shopping Center, and on its Lot, is permissive and shall not ever give rise to a claim for a prescriptive easement arising from continued public use of same. Notwithstanding any other provision herein to the contrary, each Lot owner may periodically restrict ingress and egress on its Lot in order to prevent a prescriptive easement from arising by continued public use of same. Any restriction on ingress or egress shall be limited to the minimum period of time necessary to prevent a gift, dedication, or creation of a prescriptive easement or other right, and shall occur at such times as to have minimum effect on the construction or operation of the Shopping Center.

ARTICLE III - MAINTENANCE AND UPKEEP OF COMMON AREA; SHARED FEATURES; IRRIGATION AND ROCKFORD DITCH

SECTION 3.1 Each Lot owner shall be responsible, at its sole cost and expense, for the repair and upkeep of that portion of the Common Area situated on its Lot, which repair and upkeep shall be performed in a workmanlike, diligent and efficient manner and shall include:

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- (a) Maintenance of paved surfaces in a level and smooth condition, free of potholes, with the type of material as originally used or a substitute equal in quality;
- (b) Removal of all trash and debris and washing or sweeping as required;
- (c) Removal of snow and ice from paved surfaces and sidewalks;
- (d) Maintenance of appropriate parking area entrance, exit and directional markers, and other traffic control signs as are reasonably required to effect the Plat;
- (e) Cleaning of lighting fixtures and relamping as needed;
- (f) Restriping as required to keep same clearly visible;
- (g) Maintenance of any electrical and storm water lines which exclusively provide service to the Common Area;
- (h) Mowing, grooming and irrigation of all seeded, sodded, grass or ground covered areas and maintenance and replacement of all landscaped areas (including maintenance, repair and replacement of irrigation systems);
- (i) Maintenance and cleaning of all storm water drainage systems; and
- (j) Maintenance, repair and replacement of enclosures for trash receptacles.

All such maintenance, repair and replacement of the Common Area shall be accomplished in a first class manner in accordance with standards pursuant to which other shopping centers of a similar size in the County in which the Shopping Center is located are maintained and repaired.

SECTION 3.2 Each Lot owner shall indemnify, defend and save harmless the other Lot owners and any Kroger Party, and their respective tenants and licensees, from all claims, liens, damages and expenses, including reasonable attorneys' fees, arising out of the repair, maintenance and replacement of the Common Area on its respective Lot. Should a Lot owner breach any of its obligations under this Article III, any other Lot owner shall be entitled to enforce the remedies provided in Article VIII hereof.

SECTION 3.3 The Shopping Center contains three (3) shared areas located on Lot 2 that are intended to benefit Lot 2, Lot 3 and Lot 4: (i) the onsite infiltration/water quality pond (the "Pond"), (ii) the community area, and (iii) the public art area (subsections (i), (ii), and (iii) individually a "Feature" and collectively, "Shared Features"). The Shared Features are depicted on Exhibit "C" attached hereto. All costs for the maintenance, repair, and replacement of the Shared Features (the "Shared Feature Expenses") shall be borne by the owners of Lot 2, Lot 3, and Lot 4, based on their Pro Rata Shares for Shared Feature Expenses. The owner of Lot 2 shall be responsible for the maintenance, repair, and replacement of the Shared Features and shall send the other owners by no later than March 1 of each year, a reasonably detailed statement showing the actual costs incurred by the Lot 2 owner during the



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previous year in connection with the maintenance, repair and replacement of the Shared Features, together with an invoice for such Lot owner's Pro Rata Share of such Shared Feature Expenses. The amounts due shall be paid to the Lot 2 owner within 30 days. Amounts not paid within 30 days shall accrue interest at the rate provided in Section 8.2 hereof until paid. The Lot 2 owner shall have the right to lien the lot of any other owner that fails to pay within 90 days. Notwithstanding anything contained herein to the contrary, the owners of Lot 1 and Lot 5 shall have no right to use any of the Shared Features.

SECTION 3.4

- (a) Irrigation water for the Shopping Center (including those portions of the Shopping Center located in rights of way that have been, or will be dedicated to the Town of Carbondale) will be provided from the Rockford Ditch pursuant to the Ditch Relocation Agreement. Water from the Rockford Ditch will be diverted to a pump station located in the southwest corner of Lot 2, the location and plans for which are depicted on the plans attached hereto as Exhibit "E" (the "Pump Station and Ditch Infrastructure"), and pumped from the Pump Station to each Lot and to those portions of the Shopping Center located in rights of way that have been, or will be dedicated to the Town of Carbondale through irrigation lines serving each Lot and the portions of the Shopping Center located in rights of way that have been, or will be dedicated to the Town of Carbondale (collectively, the "Lot Irrigation Lines"; and each a "Lot Irrigation Line").
- (b) All costs for the operation, maintenance, repair, and replacement of the Pump Station and Ditch Infrastructure, including OMR&R (as that term is defined in the Ditch Relocation Agreement) (collectively, the "Shared Irrigation and Ditch Expenses") shall be borne by the owners of Lot 1, Lot 2, Lot 3, Lot 4, and Lot 5 based on their Pro Rata Shares of Shared Irrigation and Ditch Expenses. The owner of Lot 4 shall be responsible for the operation, maintenance, repair, and replacement of the Pump Station and Ditch Infrastructure and shall send the other owners by no later than March 1 of each year, a reasonably detailed statement showing the actual costs incurred by the Lot 4 owner during the previous year in connection with the operation, maintenance, repair and replacement of the Pump Station and Ditch Infrastructure, together with an invoice for such Lot owner's Pro Rata Share of such Shared Irrigation and Ditch Expenses. The amounts due shall be paid to the Lot 4 owner within 30 days. Amounts not paid within 30 days shall accrue interest at the rate provided in Section 8.2 hereof until paid. The Lot 4 owner shall have the right to lien the lot of any other owner that fails to pay within 90 days.
- (c) With respect to the Lot Irrigation Lines, the owner of each Lot shall be responsible for the operation, maintenance, repair, and replacement of the Lot Irrigation Line(s) serving such owner's Lot and the Town of Carbondale shall be responsible for the operation, maintenance, repair, and replacement of the Lot Irrigation Line(s) serving the portions of the Shopping Center located in rights of way that have been, or will be dedicated to the Town of Carbondale. Notwithstanding the foregoing, Lot 2, Lot 3, and Lot 4 will be served by the same Lot Irrigation Line; accordingly the costs and expense associated with the preceding sentence shall be shared

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by Lot 2, Lot 3, and Lot 4 in the same proportion as the Pro Rata Share for Shared Feature Expenses.

(d) Subject to the terms of any agreement that may be mutually acceptable to the owner of Lot 1 and the owner of 1337 Main, the owner of Lot 1 shall have the right to allow the owner of 1337 Main to connect to any Lot Irrigation Line(s) serving Lot 1 for the purpose of irrigating 1337 Main.

(e) The Town of Carbondale shall have the right, at its sole cost and expense, to construct within the Pump Station a separate pump for the Lot Irrigation Line(s) that serve(s) the portions of the Shopping Center located in rights of way that have been, or will be dedicated to the Town of Carbondale. If such separate pump is constructed by the Town of Carbondale, the Town of Carbondale shall also be responsible for all costs for the operation, maintenance, repair, and replacement of such pump.

(f) The owners of Lot 1, Lot 2, Lot 3, Lot 4, and Lot 5 hereby agree, for themselves and their respective successors and assigns, to:

- i. Provide the Ditch Association annually with copies of any insurance obtained and maintained pursuant to Section 4.1 of this Agreement;
- ii. Maintain the Modified Ditch (as that term is defined in the Ditch Relocation Agreement), including any existing and future improvements thereto, and to pay for all expenses related to the operation, maintenance, repair, and replacement of the entire portion of the Modified Ditch which was modified and/or piped pursuant to the Ditch Relocation Agreement, including that portion of the Ditch depicted on Exhibit B attached to the Ditch Relocation Agreement. Such expenses, together with interest, costs, and reasonable attorneys' fees shall be a charge and continuing lien upon Lot 1, Lot 2, Lot 3, Lot 4 and Lot 5, as set forth in the Ditch Relocation Agreement, until paid; and
- iii. Hold harmless, indemnify, and defend the Ditch Association, its successors and assigns to the fullest extent allowed under Colorado law from and against any actual or threatened loss, claim, demand, negligence, cause of action, liability, cost, expense (including attorneys' fees and litigation expenses and costs) or damages of any kind or nature (including those involving death, personal injury or property damage) associated with or arising from any activity performed in any way related to the Project (as that term is defined in the Ditch Relocation Agreement) or any ongoing obligation under the Ditch Relocation Agreement, including OMR&R (as that term is defined in the Ditch Relocation Agreement).



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(g) Nothing in this Section 3.4 limits any rights that the Ditch Association may have against Developer, or limits or reduces any obligations that Developer may owe to the Ditch Association pursuant to the Ditch Relocation Agreement.

SECTION 3.5 Should a Lot owner breach any of its obligations set forth in this Article III, any Kroger Entity shall have the right to perform or enforce any of the rights set forth in Article VIII hereof, in its sole discretion, for so long as such Kroger Entity may have a legal or equitable interest in a Lot.

ARTICLE IV - LIABILITY INSURANCE

SECTION 4.1 The owner of each Lot shall maintain comprehensive general liability insurance, including contractual liability coverage, naming the other Lot owners and any Kroger Party as additional insureds and providing coverage with a combined bodily injury, death and property damage limit of Three Million and 00/100 Dollars (\$3,000,000.00) or more per occurrence. A Lot owner or its tenant, or the parent company of either, having a net worth of One Hundred Million and 00/100 Dollars (\$100,000,000.00) or more or a market capitalization of One Billion and 00/100 Dollars (\$1,000,000,000.00) or more may self-insure this obligation. The owner of a Lot shall provide a Lot owner or any applicable Kroger Party, whichever the case may be, with a certificate of insurance or self-insurance, which certificate shall provide that the coverage referred to therein shall not be modified or cancelled without at least thirty (30) days written notice to each named insured thereunder. A Lot owner that is also a Kroger Entity may satisfy the requirements of the immediately preceding sentence by making available on the website(s) of the issuer(s) of such comprehensive generally liability insurance required by this Section 4.1 (or, with respect to self-insurance, on a website designated by such Kroger Entity) a Memorandum of Insurance evidencing such coverage.

ARTICLE V - DAMAGE OR DESTRUCTION

SECTION 5.1 In the event that any part of the Common Area is destroyed or damaged by fire, casualty or force majeure, the owner of the affected Lot, at its sole cost and expense, forthwith shall clear and restore such area.

SECTION 5.2 In the event that any part of the Building Area on a Lot is damaged by fire, casualty or force majeure, the owner thereof shall not be obligated to restore same, provided that such Lot owner, at its sole cost and expense, shall diligently proceed to raze the damaged structures, remove all debris, and either (i) pave such area for parking in general conformity with the parking layout shown on the Plat, or (ii) place said in area in a grass lawn or other orderly landscaped condition, and in either case of (i) or (ii) install adequate storm drainage and adequate lighting in general conformity with the lighting used in the Common Area. Any area restored in this manner shall be maintained as though it were part of the Common Area until improved with building improvements.

SECTION 5.3 In the event that any part of the Common Area is condemned, the owner of the affected Lot, at its sole cost and expense, forthwith shall restore such area as much as practicable to provide the same approximate configuration, size, location and number of parking lot light standards, driveways, walkways, parking spaces and curb cuts to adjacent roadways existing prior to the condemnation. Any award on account of a condemnation on the Common Area first shall be used in the



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restoration of same, and any claim to the award made by a Lot owner or its tenants or licensees hereunder shall be expressly subject and subordinate to its use in such restoration. The term "condemnation" as used herein shall include all conveyances made in anticipation or lieu of an actual taking.

Nothing in this Section shall be construed to give any Lot owner an interest in any award or payment made to another Lot owner in connection with any exercise of the power of eminent domain or any transfer in lieu thereof affecting said other Lot owner's Lot or giving the public or any government any rights in said Lot. In the event of any exercise of the power of eminent domain or transfer in lieu thereof of any part of the Common Area, the award attributable to the land and improvements of such portion of the Common Area shall be payable only to the owner thereof, and no claim thereon shall be made by the owners of any other portion of the Common Area.

All other owners of the Common Area may file collateral claims with the condemning authority for their losses which are separate and apart from the value of the land area and improvements taken from another owner. Nothing in this Section shall prevent a tenant from making a claim against an owner pursuant to the provisions of any lease between such tenant and such owner for all or a portion of any such award or payment.

If there shall be any building improvements located on the condemned area, the owner of said condemned area shall, at its sole cost, risk and expense, and at its option, either restore the remainder of said building as much as practicable out of the same materials used for the original structure or raze the remainder of the condemned structure, remove all debris, and either (i) pave the remaining area so razed for parking in general conformity with the parking layout shown on the Plat, as revised to reflect the removal of the condemned area from the Shopping Center, or (ii) place said area in a grass lawn or other orderly landscaped condition, and in either case of (i) or (ii) install adequate storm water drainage and adequate lighting in general conformity with the lighting used in the Common Area. Any area restored in this manner shall be maintained as though it were part of the Common Area.

SECTION 5.4 Notwithstanding the requirements of Sections 5.2 and 5.3 hereof, the Lot 2 owner, in its sole and absolute discretion, in lieu of paving or landscaping the Building Area affected by a casualty or condemnation, may leave the building slab located within such Building Area in place, provided such building slab is maintained in a safe condition.

ARTICLE VI - RESTRICTIONS

SECTION 6.1 No part of the Shopping Center, except Lot 2, shall be used as a drug store or a business principally devoted to the sale of health and beauty aids, or for a pharmacy department requiring the services of a registered pharmacist, provided that this restriction shall cease to be in force and effect if the occupant of the storeroom situated on the Lot 2 fails to operate a drug store, or pharmacy department in the case that Lot 2 is not used as a drug store, for a period of three hundred sixty-five (365) consecutive days or longer subsequent to the opening for business of said storeroom on the Lot 2, except when such failure is caused by labor disputes, force majeure (including reconstruction as a result of fire or other casualty) or conditions beyond the control of the occupant.

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SECTION 6.2 No part of the Shopping Center, except Lot 2, shall be used as a supermarket that carries groceries, meats, fish, produce, dairy products, bakery products and alcoholic beverages in the same store for off premises consumption; provided that nothing herein shall prevent the sale of such products in any store that does not carry all such products and is not a supermarket that carries such products for off premises consumption; and further provided that this restriction shall cease to be in force and effect if the occupant of Lot 2 fails to conduct a supermarket business for the sale of groceries, meats, fish, produce, dairy products, bakery products and alcoholic beverages for off premises consumption in the same store, for three hundred sixty-five (365) consecutive days or longer subsequent to the opening for business of said supermarket on Lot 2, except when such failure is caused by labor disputes, force majeure (including reconstruction as a result of a fire or other casualty) or conditions beyond the control of the occupant.

SECTION 6.3 No part of the Shopping Center, except Lot 3, shall be used for the sale of automotive fuel, including without limitation gasoline and diesel fuel, provided that this restriction shall cease to be in force or effect if, the operator of any automotive fuel dispensing facility located on Lot 3 fails to conduct a business for the sale of automotive fuel for three hundred sixty five (365) consecutive days or longer subsequent to the opening for business of such automotive fuel dispensing facility on Lot 3 except when such failure is caused by labor disputes, force majeure (including reconstruction as a result of a fire or other casualty) or conditions beyond the control of the operator.

SECTION 6.4 No part of the Shopping Center, except Lot 2, shall be used as a non-retail business which requires extensive parking that would violate the parking rules and regulations (if any) established by the Town of Carbondale, including without limitation a disco, nightclub, bowling alley, bingo parlor, or community recreational center; provided, however, that if any part of the Shopping Center is approved by the Town of Carbondale for residential purposes, it shall not be a violation of this Agreement to use those parts of the Shopping Center approved for residential purposes in compliance with all laws, orders, rules and regulations of any governmental or private authority having jurisdiction over same.

SECTION 6.5 No part of the Shopping Center shall be used as a business which principally features sexually explicit products. No part of Lot 4 shall be used as a business for the sale of medical or recreational marijuana.

SECTION 6.6 The initial plans and specifications for the development of Lot 4 have been approved by the Lot 2 owner. If, after the completion of construction of the approved improvements on Lot 4, the improvements on Lot 4 are redesigned and reconstructed the Lot 4 owner shall submit to the Lot 2 owner and any Kroger Party, plans and specifications for all such new improvements to be constructed on Lot 4, including without limitation exterior elevation, architectural and signage plans and specifications, for review and approval by the Lot 2 owner and any such Kroger Party. Any approval by the Lot 2 owner shall not be deemed to constitute a warranty or representation by the Lot 2 owner with respect to the materials, design, location, construction or workmanship of any improvements on Lot 4. The Lot 4 owner shall obtain the foregoing approvals before commencing any such new construction on Lot 4, before implementing any changes in plans theretofore approved by the Lot 2 owner, and before

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commencing any construction to repair, replace or restore the exterior of any improvements on Lot 4 following a condemnation or a casualty thereon. Nothing in this paragraph shall apply to any work or construction on the interior of any buildings on Lot 4. In addition to the foregoing, if, after the completion of construction of the approved improvements on Lot 4, the improvements on Lot 4 are redesigned and reconstructed, the Lot 4 owner understands that the Lot 2 will require the following for any redesigned or reconstructed building on Lot 4: (i) no part of the building improvements situated on Lot 4 shall be more than one (1) story in height nor exceed twenty-eight (28) feet in height from ground level, except for architectural or ornamental elements, towers or facades which may be up to thirty-five (35) feet in height from ground level, provided such architectural or ornamental elements, towers or facades shall not exceed the lesser of twenty-five (25) feet in width or twenty-five percent (25%) of the frontage of the building in which they are located; and (ii) the total square footage of any building constructed on Lot 4 shall not exceed ten thousand five hundred (10,500) square feet.

SECTION 6.7 Each Lot in the Shopping Center shall have a parking ratio that complies with all applicable laws, codes, rules and regulations without considering available parking spaces on any other Lot within the Shopping Center. The dimensions of each parking space on the Lots shall conform to applicable municipal requirements.

SECTION 6.8 (a) Each Lot owner shall perform construction on its Lot so as not unreasonably interfere with any other construction being performed on any of the other Lots; or unreasonably interfere with the operations conducted on any other Lot.

(b) Each Lot owner agrees that in the event any mechanic's lien or other statutory liens shall be filed against a Lot other than its own Lot by reason of work, labor, services or materials supplied to or at the request of such owner pursuant to any construction on such owner's Lot, or supplied to or at the request of its tenant or licensee pursuant to any construction by said tenant or licensee, it shall discharge the same of record within thirty (30) days after the filing thereof, subject to the provisions of the following sentence. Each Lot owner shall have the right to contest the validity, amount or applicability of any such liens by appropriate legal proceedings, and, so long as it shall furnish bond or indemnify as hereinafter provided and be prosecuting such contest in good faith, the requirement that it discharge such liens within said thirty (30) days shall not be applicable; provided, however, that in any event such Lot owner shall, within thirty (30) days after the filing thereof, bond or indemnify against such liens in amount and in form satisfactory to induce the title insurance company or companies which insured title to the respective Lots to each of the Lot owners to insure over such liens or to reissue and update its existing policy, binder or commitment without showing title exception by reason of such liens, and shall indemnify, defend and save harmless the other Lot owners from all loss, damage, liability, expense or claim whatsoever (including reasonable attorneys' fees and other costs of defending against the foregoing) resulting from the assertion of any such liens. In the event such legal proceeding shall be finally concluded (so that no further appeal may be taken) adversely to the Lot owner contesting such liens, such Lot owner shall, within five (5) days thereafter, cause the liens to be discharged of record.

SECTION 6.9 All electrical and telephone wires and all other utility lines serving the Lots shall be buried below grade such that the same shall not be visible.



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SECTION 6.10 No fence, landscaping or other structure of any kind (except as may be specifically permitted herein) shall be placed, kept, permitted or maintained upon the Common Area portion of Lot 4 without the prior written consent of the Lot 2 owner and any Kroger Party.

SECTION 6.11 All lighting structures and standards erected in the Common Area portion of any Lot shall be erected by and at the expense of the Lot owner; shall be erected prior to commencement of business on each such Lot; and shall be located in such areas and in accordance with such plans and specifications as shall be approved by the Lot 2 owner and any Kroger Party.

SECTION 6.12 No portion of the Common Area of Lot 1, Lot 4, or Lot 5 shall be encumbered by any easement, right-of-way, license or other servitude for the purpose of parking on or vehicular passage across the Common Area of Lot 1, Lot 4, or Lot 5 benefiting property outside of the Shopping Center without the prior written consent of the Lot 2 owner and any Kroger Party.

SECTION 6.13 Any Lot owner shall, for the benefit of itself and any tenant, subtenant or licensee on such owner's Lot, have the right to enforce directly against the other Lot owners, tenants, subtenants, licensees and occupants, the restrictions against use set forth in this Agreement; but nothing herein shall require or be deemed an undertaking by any Lot owner or any tenant, subtenant or licensee to enforce the same. So long as any Kroger Entity has a legal or equitable interest in a Lot, such Kroger Entity shall also have the right for the benefit of itself to enforce directly against the other Lot owners, tenants, subtenants, licensees and occupants, the restrictions against use set forth in this Agreement; but nothing herein shall require or be deemed an undertaking by such Kroger Entity to enforce the same.

SECTION 6.14 The remedies for breach of any of the restrictions set forth in this Article shall be cumulative, not exclusive, and shall include injunctive relief.

ARTICLE VII - TAXES

SECTION 7.1 Each Lot owner shall pay (or cause to be paid) before delinquency all real estate taxes and assessments (herein collectively "Taxes") levied on its Lot and the improvements situated thereon.

SECTION 7.2 Each Lot owner may, at its own cost and expense by appropriate proceeding, contest the validity, applicability and/or the amount of any Taxes. Nothing in this Article shall require a Lot owner to pay any Taxes so long as it contests the validity, applicability or the amount thereof in good faith and so long as it does not allow the affected Lot to be forfeited to the imposer of such Taxes as a result of its nonpayment.

SECTION 7.3 If a Lot owner fails to comply with this Article, either the Lot 2 owner or any Kroger Party may pay the Taxes in question and shall be entitled to prompt reimbursement from the defaulting Lot owner for the sums so expended with interest thereon at the rate provided in Section 8.2 hereof.

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ARTICLE VIII - DEFAULT

SECTION 8.1 Except as otherwise expressly set forth in this Agreement, should a Lot owner breach any of its obligations hereunder and such breach continue for a period of thirty (30) days after its receipt of written notice, any of the other Lot owners or any Kroger Party shall be entitled to cure such breach in addition to all remedies at law or in equity, provided that such party furnish prior notice to the other Lot owners and any Kroger Party, and further provided that no notice is required should the breach create an emergency or interfere with use of a Lot. All expenses incurred by the other Lot owner(s) or such Kroger Party to cure the defaulting Lot owner's uncured breach pursuant to the preceding notice shall be reimbursed by the defaulting Lot owner within thirty (30) days after receipt of written evidence confirming the payment of such expenses.

SECTION 8.2 Any sums remaining unpaid in accordance with Article III, Section 7.3 or Section 8.1, together with interest calculated at three percent (3%) above the prime rate charged by CitiBank, N.A., New York, New York, or any successor thereto, or at the highest annual interest rate allowed by law, whichever is less, may be secured by a lien on the Lot of the owner in default and may be perfected in accordance with the laws of the State of Colorado, which lien shall retain the original priority of title of this Agreement.

SECTION 8.3 In the event of litigation by reason of this Agreement, the prevailing party in such litigation shall be entitled to recover reasonable attorneys' fees in addition to all other expenses incurred by such litigation.

SECTION 8.4 Any Kroger Entity shall be a beneficiary of all of the rights, easements, covenants and restrictions set forth herein and shall be entitled to enforce same for so long as such Kroger Entity may have any legal or equitable interest in a Lot.

ARTICLE IX - MISCELLANEOUS PROVISIONS

SECTION 9.1 Except as provided below, this Agreement may be amended, terminated or rescinded only with the written approval of all owners of the Lots, and any Kroger Party. With the prior written approval of any Kroger Party, the Lot owners may modify or amend this Agreement by filing an amendment hereto. Any such amendment, termination or rescission shall be evidenced by a written instrument recorded in the Office of the Clerk & Recorder of Garfield County, Colorado. In addition, and without limitation to the foregoing, the provisions in Article II and Article III of this Agreement may only be amended with the prior written consent of the Town of Carbondale, whose consent shall be necessary for the sole purpose of confirming that the proposed amendment does not violate the provisions of Section 6(l) of Ordinance No. 5, Series of 2016, and whose consent shall not be unreasonably withheld, conditioned or delayed.

SECTION 9.2 Any Lot may be subdivided by the owner of such Lot (subject to compliance with all applicable rules and regulations of the Town of Carbondale and any other governmental body having jurisdiction). In such case, the subdivided lots or parcels shall be subject to this Agreement, and the

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owner of such subdivided lot or parcel shall have all the rights and obligations applicable to the owners of the Lots in the Subdivision as of the date hereof.

SECTION 9.3 This Agreement shall not create an association, partnership, joint venture or a principal and agency relationship between the owners of the Lots or their tenants or licensees.

SECTION 9.4 No waiver of any provision hereof shall be deemed to imply or constitute a further waiver thereof or any other provision set forth herein.

SECTION 9.5 Should any provision hereof be declared invalid by a legislative, administrative or judicial body of competent jurisdiction, the other provisions hereof shall remain in full force and effect and shall be unaffected by same.

SECTION 9.6 All notices and approvals required or permitted under this Agreement shall be served by (i) certified mail, return receipt requested, or (ii) nationally recognized overnight courier, to a party at the last known address of its principal place of business. Date of service of notice or approval shall be the date on which such notice or approval is deposited in a Post Office of the United States Postal Service or any successor governmental agency. Should a Parcel be subdivided by separate ownership, and an additional Parcel is not established pursuant to Section 9.2 hereof, the party who owns the largest portion thereof is irrevocably appointed attorney-in-fact for all parties who may own an interest in the Parcel to receive all notices and to render all approvals hereunder, which receipt of notices and delivery of approvals shall be binding on all such parties.

SECTION 9.7 All of the provisions hereof shall run with the land in perpetuity and shall be binding on Developer, City Market and their respective successors and assigns; provided, however, if any of the provisions of this Agreement shall be unlawful, void or voidable for violation of the Rule Against Perpetuities, then such provisions shall continue only until twenty one (21) years after the death of the survivor of the now-living descendants of her Majesty, Queen Elizabeth II, the Queen of England.

SECTION 9.8 This Agreement contains the entire undertaking by the parties hereto and there are no other terms, expressed or implied, except as contained herein.

SECTION 9.9 This Agreement may be executed in counterparts.

[Signature Page Follows]



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IN WITNESS WHEREOF, the parties hereto have executed this Reciprocal Easement Agreement.

CITY MARKET:

DILLON REAL ESTATE CO., INC.,
a Kansas corporation

By: 
Name: **Rick J. Landrum**
Title: **Vice President**

DEVELOPER:

CRYSTAL RIVER MARKETPLACE LLC,
a Colorado limited liability company

By: 
Briston Peterson, Manager



EXHIBITS:

Exhibit "A" – Plat
Exhibit "B" – Amended Plat
Exhibit "C" – Depiction of Sign Locations and Features
Exhibit "D" – Legal Description of 1337 Main
Exhibit "E" – Ditch Diversion/Pump Station Plans

This Instrument Prepared By:

Jennifer K. Gothard
The Kroger Co.
1014 Vine Street
Cincinnati, Ohio 45202-1100

[Acknowledgments on Following Page]



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STATE OF OHIO)
) SS:
 COUNTY OF HAMILTON)

The foregoing instrument was acknowledged before me this 27th day of February, 2018, by Rick J. Landrum the Vice President of Dillon Real Estate Co., Inc., a Kansas corporation, on behalf of the corporation.

IN WITNESS WHEREOF I have hereunto set my hand and official seal.

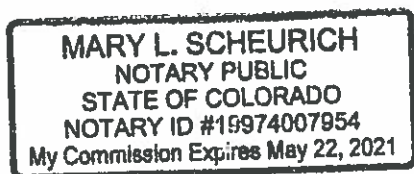


Renee A. R. Cipriani
 Notary Public, State of Ohio Renee A. R. Cipriani
 My Commission Expires 11-30-2020 Notary Public

STATE OF COLORADO)
) SS:
 COUNTY OF GARFIELD)

The foregoing instrument was acknowledged before me this 28th day of February, 2018, by Briston Peterson, Manager of Crystal River Marketplace LLC, a Colorado limited liability company.

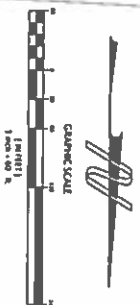
IN WITNESS WHEREOF I have hereunto set my hand and official seal.



M. Schurich
 Notary Public

SHEET 2 OF 3
EXISTING EASEMENTS

COLORADO ROCKY MOUNTAIN SCHOOL
(NATURAL SCIENCE)



CIVIL CONSULTANTS

(970) 704-0311 SOPRISENG@SOPRISENG.COM



TABLE 1

CERTIFICATE OF REGISTRATION AND DOWNGRADING
ISSUED FOR ALL REGIONS BY THESE PRESENTS

THE CENTRAL BANK MARKETPLACE LTD. IS THE SOLE OWNER AND IN FULL CONTROL OF ALL THAT ARE PROPERTY SITuated IN THE TOWN OF CARDOWALL, COUNTY OF GABRIEL, STATE OF CALIFORNIA, OR EXTENDED ON STREET 1 OF THIS FIRST AGREEMENT PLAT.

1. *Journal of Chemical Education*, 66, 623-624 (1989).

QUESTIONS FOR DISCUSSION

IN WITNESS WHEREOF, I have hereunto set my hand and the seal of said Court at _____, D.C., this _____ day of _____, A.D. 2012.

County of _____

AS SUPPLIED BY CHRYSLER, INC. OR SUBSIDIARIES, LLC.

WITHIN 55 CITY WARD AND 12 A

Medial Axis Pursuit

Human Factors

PART OF PUBLIC AFFAIRS 1007, UPGRADE MAY 2011

DATE OF PREPARATION: June - August 2011

[illegible]

1. The first step is to identify the problem or question that needs to be answered. This involves understanding the context and the specific requirements of the task.

THESE ARE THE SEVERAL TYPES OF THERAPY USED TO TREAT DRUG ADDICTION. THE THERAPY WAS A MIXED BLEND OF COGNITIVE-BEHAVIORAL THERAPY, GROUP THERAPY, AND INDIVIDUAL THERAPY. ALONG WITH RECOVERY OF THE EXHAUSTED BODY AND MIND, STUDENTS RETURNED TO THE SCHOOLS. THE TOWNSHIP AND CAPLIS (2011) DOCUMENTED THE FOLLOWING COMMENTS AND THE FOLLOWS REVEAL DOCUMENTING THE NORTHWEST CORNER OF LALO PLAZA.

THIS SILENT VOICE DOES NOT CONSTITUTE A TRULY STARCHY OR SPOON-POISED LIFE (11)

by which to win a land the Third Commandment provided by the Bible that "Thou shalt not take the name of the Lord thy God in vain: for he that taketh the name of the Lord his God in vain, shall surely be guilty of death." (Exodus 20:7)

5777 AC6 Parts or Components Available From: DECEMBER 1966 to 06/1967

THE STAFF REQUESTED THE 133 PROJECT AND STATIONING BEING ESTABLISHED DURING THE 602 AND 604 WORK PERIODS AT STATION 11+78.111 AND 11+75.111.

PLAY

2

SOPRIS ENGINEERING - LLC
2001 COLONY DRIVE

CIVIL CONSULTANTS

302 MAIN STREET, SUITE A3
CARBONDALE, ILLINOIS 61573

(970) 704-0311 SOPRISENG@SOPRISENG.COM

TABLE 1

3. **PROPOSED NEW LA VENT AND LA VENT**

[illegible][illegible]

SCALE 1 = 1000

ОТ ЛЕВЪ ДО ПРАВИЛО

[illegible]

Py. A. 1000000

Summary of Significant

[illegible]

MADE IN CHINA, P. 23. 87064

Future research in clinical

THIS FIRST MENTIONED PARTY WAS FIELD FOR RECORD IN THE OFFICE OF THE CLERK AND RECORDER OF
SARASOTA COUNTY AT _____ OCTOBER ____ AT _____ DAY OF _____ A.D., 2014,
AND IS CURRENTLY IN FORCE _____, PAGE _____, RECEIVED NO. _____

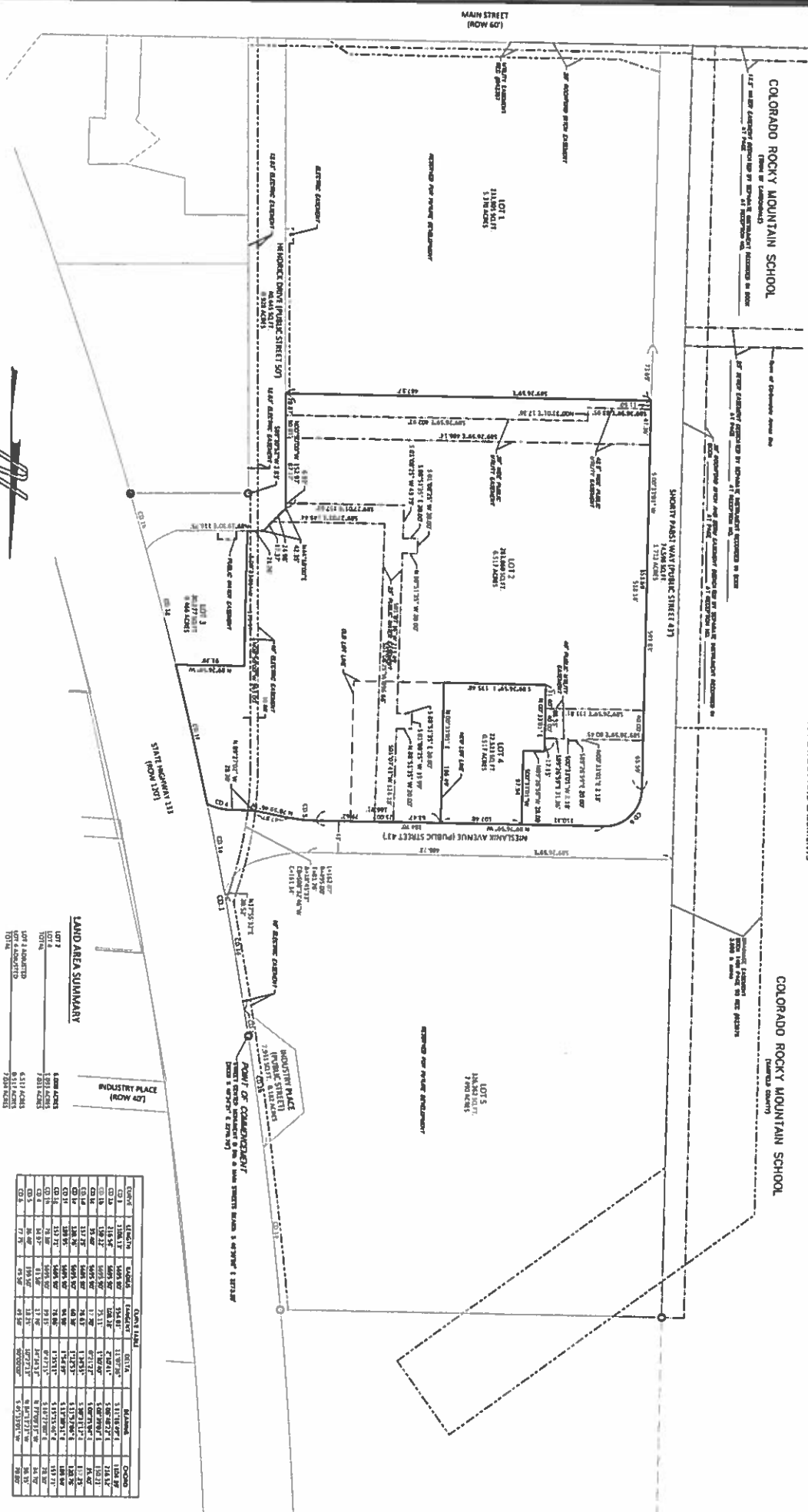
Ques And Answer

—

LOTS 2 & 4, CARBONDALE MARKETPLACE SUBDIVISION

A PARCEL OF LAND SITUATED IN SECTION 33, TOWNSHIP 7 SOUTH, RANGE 88 WEST OF THE 6th P.M.
TOWN OF CARBONDALE, COUNTY OF GARFIELD, STATE OF COLORADO

SHEET 2 OF 2
PROPOSED LOT LAYOUT AND EASEMENTS



LAND AREA SUMMARY

LOT 2	6.008 ACRES
LOT 4	1.973 ACRES
LOT 14	7.011 ACRES
LOT 2 ADJACENT	0.513 ACRES
LOT 6 ADJACENT	0.512 ACRES
TOTAL	17.014 ACRES

Country	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100	2101	2102	2103	2104	2105	2106	2107	2108	2109	2110	2111	2112	2113	2114	2115	2116	2117	2118	2119	2120	2121	2122	2123	2124	2125	2126	2127	2128	2129	2130	2131	2132	2133	2134	2135	2136	2137	2138	2139	2140	2141	2142	2143	2144	2145	2146	2147	2148	2149	2150	2151	2152	2153	2154	2155	2156	2157	2158	2159	2160	2161	2162	2163	2164	2165	2166	2167	2168	2169	2170	2171	2172	2173	2174	2175	2176	2177	2178	2179	2180	2181	2182	2183	2184	2185	2186	2187	2188	2189	2190	2191	2192	2193	2194	2195	2196	2197	2198	2199	2200	2201	2202	2203	2204	2205	2206	2207	2208	2209	2210	2211	2212	2213	2214	2215	2216	2217	2218	2219	2220	2221	2222	2223	2224	2225	2226	2227	2228	2229	2230	2231	2232	2233	2234	2235	2236	2237	2238	2239	2240	2241	2242	2243	2244	2245	2246	2247	2248	2249	2250	2251	2252	2253	2254	2255	2256	2257	2258	2259	2260	2261	2262	2263	2264	2265	2266	2267	2268	2269	2270	2271	2272	2273	2274	2275	2276	2277	2278	2279	2280	2281	2282	2283	2284	2285	2286	2287	2288	2289	2290	2291	2292	2293	2294	2295	2296	2297	2298	2299	2300	2301	2302	2303	2304	2305	2306	2307	2308	2309	2310	2311	2312	2313	2314	2315	2316	2317	2318	2319	2320	2321	2322	2323	2324	2325	2326	2327	2328	2329	2330	2331	2332	2333	2334	2335	2336	2337	2338	2339	2340	2341	2342	2343	2344	2345	2346	2347	2348	2349	2350	2351	2352	2353	2354	2355	2356	2357	2358	2359	2360	2361	2362	2363	2364	2365	2366	2367	2368	2369	2370	2371	2372	2373	2374	2375	2376	2377	2378	2379	2380	2381	2382	2383	2384	2385	2386	2387	2388	2389	2390	2391	2392	2393	2394	2395	2396	2397	2398	2399	2400	2401	2402	2403	2404	2405	2406	2407	2408	2409	2410	2411	2412	2413	2414	2415	2416	2417	2418	2419	2420	2421	2422	2423	2424	2425	2426	2427	2428	2429	2430	2431	2432	2433	2434	2435	2436	2437	2438	2439	2440	2441	2442	2443	2444	2445	2446	2447	2448	2449	2450	2451	2452	2453	2454	2455	2456	2457	2458	2459	2460	2461	2462	2463	2464	2465	2466	2467	2468	2469	2470	2471	2472	2473	2474	2475	2476	2477	2478	2479	2480	2481	2482	2483	2484	2485	2486	2487	2488	2489	2490	2491	2492	2493	2494	2495	2496	2497	2498	2499	2500	2501	2502	2503	2504	2505	2506	2507	2508	2509	2510	2511	2512	2513	2514	2515	2516	2517	2518	2519	2520	2521	2522	2523	2524	2525	2526	2527	2528	2529	2530	2531	2532	2533	2534	2535	2536	2537	2538	2539	2540	2541	2542	2543	2544	2545	2546	2547	2548	2549	2550	2551	2552	2553	2554	2555	2556	2557	2558	2559	2560	2561	2562	2563	2564	2565	2566	2567	2568	2569	2570	2571	2572	2573	2574	2575	2576	2577	2578	2579	2580	2581	2582	2583	2584	2585	2586	2587	2588	2589	2590	2591	2592	2593	2594	2595	2596	2597	2598	2599	2600	2601	2602	2603	2604	2605	2606	2607	2608	2609	2610	2611	2612	2613	2614	2615	2616	2617	2618	2619	2620	2621	2622	2623	2624	2625	2626	2627	2628	2629	2630	2631	2632	2633	2634	2635	2636	2637	2638	2639	2640	2641	2642	2643	2644	2645	2646	2647	2648	2649	2650	2651	2652	2653	2654	2655	2656	2657	2658	2659	2660	2661	2662	2663	2664	2665	2666	2667	2668	2669	2670	2671	2672	2673	2674	2675	2676	2677	2678	2679	2680	2681	2682	2683	2684	2685	2686	2687	2688	2689	2690	2691	2692	2693	2694	2695	2696	2697	2698	2699	2700	2701	2702	2703	2704	2705	2706	2707	2708	2709	2710	2711	2712	2713	2714	2715	2716	2717	2718	2719	2720	2721	2722	2723	2724	2725	2726	2727	2728	2729	2730	2731	2732	2733	2734	2735	2736	2737	2738	2739	2740	2741	2742	2743	2744	2745	2746	2747	2748	2749	2750	2751	2752	2753	2754	2755	2756	2757	2758	2759	2760	2761	2762	2763	2764	2765	2766	2767	2768	2769	2770	2771	2772	2773	2774	2775	2776	2777	2778	2779	2780	2781	2782	2783	2784	2785	2786	2787	2788	2789	2790	2791	2792	2793	2794	2795	2796	2797	2798	2799	2800	2801	2802	2803	2804	2805	2806	2807	2808	2809	2810	2811	2812	2813	2814	2815	2816	2817	2818	2819	2820	2821	2822	2823	2824	2825	2826	2827	2828	2829	2830	2831	2832	2833	2834	2835	2836	2837	2838	2839	2840	2841	2842	2843	2844	2845	2846	2847	2848	2849	2850	2851	2852	2853	2854	2855	2856	2857	2858	2859	2860	2861	2862	2863	2864	2865	2866	2867	2868	2869	2870	2871	2872	2873	2874	2875	2876	2877	2878	2879	2880	2881	2882	2883	2884	2885	2886	2887	2888	2889	2890	2891	2892	2893	2894	2895	2896	2897	2898	2899	2900	2901	2902	2903	2904	2905	2906	2907	2908	2909	2910	2911	2912	2913	2914	2915	2916	2917	2918	2919	2920	2921	2922	2923	2924	2925	2926	2927	2928	2929	2930	2931	2932	2933	2934	2935	2936	2937	2938	2939	2940	2941	2942	2943	2944	2945	2946	2947	2948	2949	2950	2951	2952	2953	2954	2955	2956	2957	2958	2959	2960	2961	2962	2963	2964	2965	2966	2967	2968	2969	2970	2971	2972	2973	2974	2975	2976	2977	2978	2979	2980	2981	2982	2983	2984	2985	2986	2987	29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SOPRIS ENGINEERING - LLC

CIVIL CONSULTANTS

502 MAIN STREET, SUITE A3
CARBONDALE, COLORADO 81623

(970) 704-0311 SOPRISENG@SOPRISENG.COM

○此等文字

City Market

CITY MARKET

#447

HWY 133

MAIN STREET

CARROLL, CO

81623

A SUBSIDIARY OF

THE GROUP COMPANY

naos

Naos Design

Group, LLC

406 SOUTH ELMWOOD ST.

DENVER, COLORADO 80202

303.733.1777

naosdesign.com

d fab

DESIGN FABRICATION

10000 E. 10TH AVE. SUITE 100

DENVER, CO 80231

303.733.1777

d-fab.com

Pickering

Engineering & Construction

10000 E. 10TH AVE. SUITE 100

DENVER, CO 80231

303.733.1777

pickeringeng.com

Garloway

Architectural & Engineering

10000 E. 10TH AVE. SUITE 100

DENVER, CO 80231

303.733.1777

garlowayarchitect.com

ISSUE LOG

REV

DESCRIPTION

DATE

BY

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[illegible]

Diagram of a rectangular sign with dimensions 24 inches wide by 48 inches high. The word "TENANT" is written vertically in the center. A 2-inch wide margin is indicated at the bottom.

[illegible][illegible]

EXTRACTION PROCEDURE

▶ **STAYING AHEAD** Staying on top of the latest in electronic equipment and services is essential for the success of any business.

[illegible]

ISSUE LOG				
NO.	REV	DESCRIPTION	DATE	BY
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98		REV		
99		REV		
100		REV		

Galloway
Paving Industries, Inc.
1000 S.W. 10th Ave., Suite 100
Fort Lauderdale, FL 33304
Tel: (954) 776-0000
Fax: (954) 776-0000
www.galloway.com

WILSON & DODD
Accounting & Consulting
 11400 HWY 60/AT Highway
 LAWRENCE, CALIFORNIA 94548
 925.451.5000 P
 925.451.5000 F

Pickering
 Packaging Film, Inc.
 Atlanta, Georgia
 Phone 404/525-1100
 Fax 404/525-1101
 6410000

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4000 HOLLYHURST BLVD. ST.
SUITE 400
DENVER, COLORADO 80237
616 263 7700 FAX
616 788 3901 FAX
www.jmccg.com

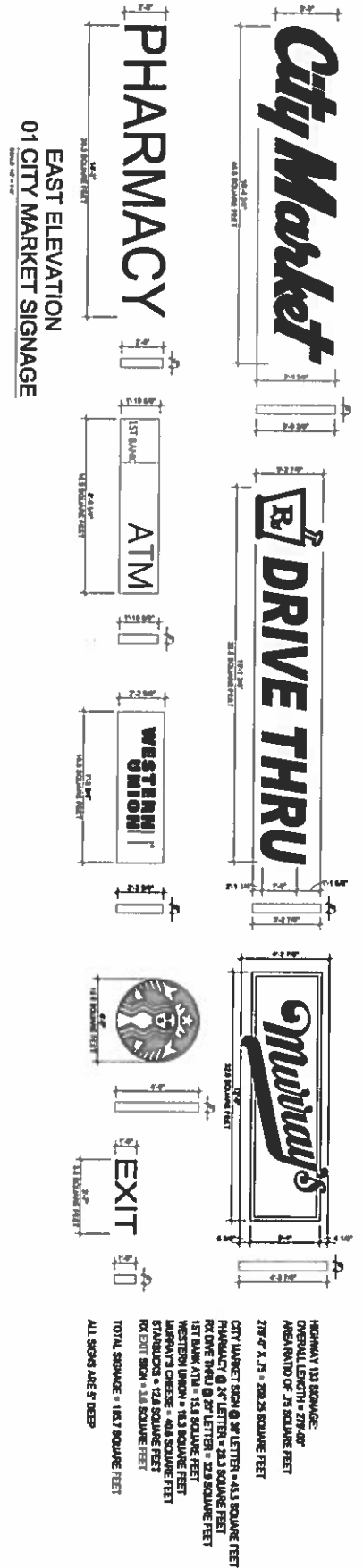
naos
Naos Design
Group, LLC

61623
A DEVELOPMENT OF
MSP3, LLC.
201 BLANCKT DRIVE N
BAYLOR, TEXAS 75703-1001

**CARBONDALE
MARKETPLACE
RETAIL**

HWY 132
8
MAIN STREET
CARBONDALE CO

EXHIBIT C - SIGN LOCATIONS AND FEATURES



SOUTH ELEVATION
02 CITY MARKET SIGNAGE



ALL SIGNAGE WILL BE APPLIED FOR UNDER A
 SEPARATE PERMIT BY OWNER'S SIGN
 CONTRACTOR. GENERAL CONTRACTOR IS
 RESPONSIBLE FOR SIGNAGE BACKING
 SUPPORT AND ELECTRICAL ROUGH IN.

CITY MARKET
 #447
 HWY 133
 MAIN STREET
 CARBONDALE, CO
 81023

Naos Group, LLC
 4040 SOUTH RIVINGTON ST.
 SUITE 400
 DENVER, CO 80231
 303.750.4501
 www.naosgroup.com

d|lab
 11111E 148TH STREET
 DENVER, CO 80231
 303.750.4501
 www.dlab.com

Pickering
 11111E 148TH STREET
 DENVER, CO 80231
 303.750.4501
 www.pickering.com

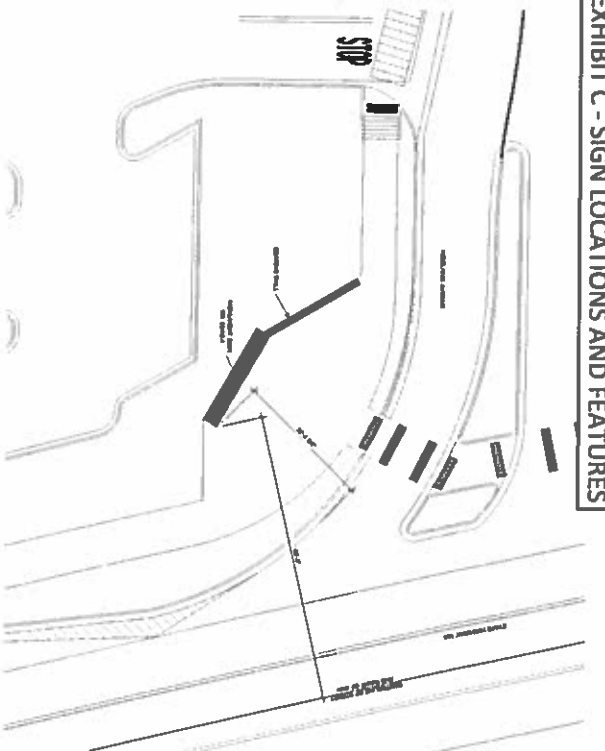
Galloway
 11111E 148TH STREET
 DENVER, CO 80231
 303.750.4501
 www.galloway.com

ISSUE LOG

NO.	REV.	DESCRIPTION	DATE
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6	1	ISSUE LOG	02/28/2018
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36	1	ISSUE LOG	02/28/2018
37	1	ISSUE LOG	02/28/2018
38	1	ISSUE LOG	02/28/2018
39	1	ISSUE LOG	02/28/2018
40	1	ISSUE LOG	02/28/2018
41	1	ISSUE LOG	02/28/2018
42	1	ISSUE LOG	02/28/2018
43	1	ISSUE LOG	02/28/2018
44	1	ISSUE LOG	02/28/2018
45	1	ISSUE LOG	02/28/2018
46	1	ISSUE LOG	02/28/2018
47	1	ISSUE LOG	02/28/2018
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50	1	ISSUE LOG	02/28/2018

A2.3

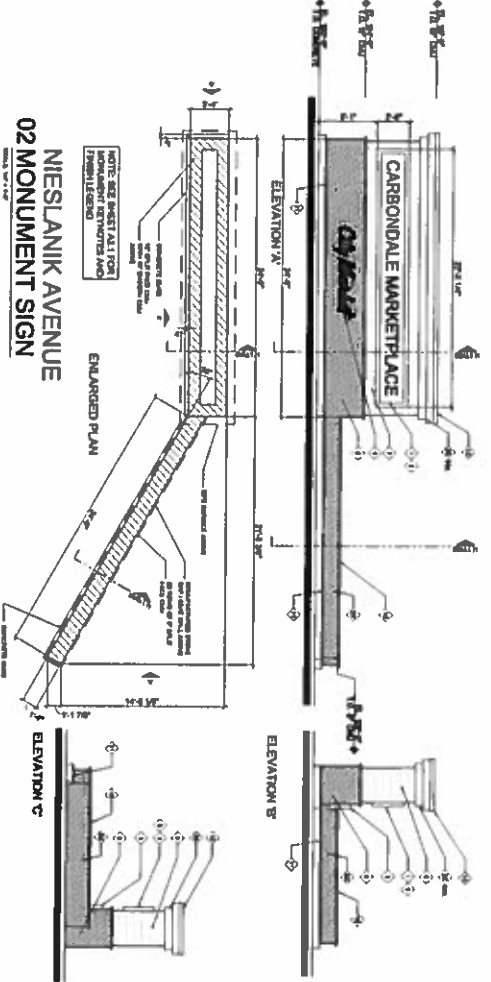
EXHIBIT C - SIGN LOCATIONS AND FEATURES



01 MONUMENT SIGN SITE PLAN

ALL SIGNAGE WILL BE APPLIED FOR UNDER A SEPARATE PERMIT BY OWNER'S SIGN CONTRACTOR. GENERAL CONTRACTOR IS RESPONSIBLE FOR BUILDING THE MONUMENT SIGNS AS SHOWN AND DETAILED AS WELL AS THE ELECTRICAL ROUGH INS FOR THE SIGNAGE.

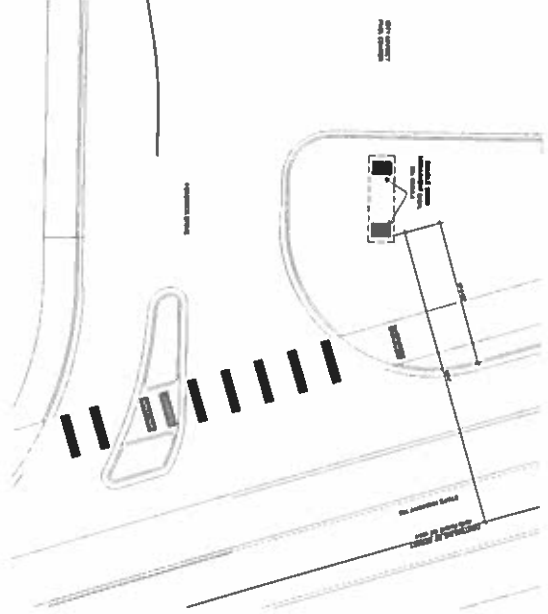
02 MONUMENT SIGN



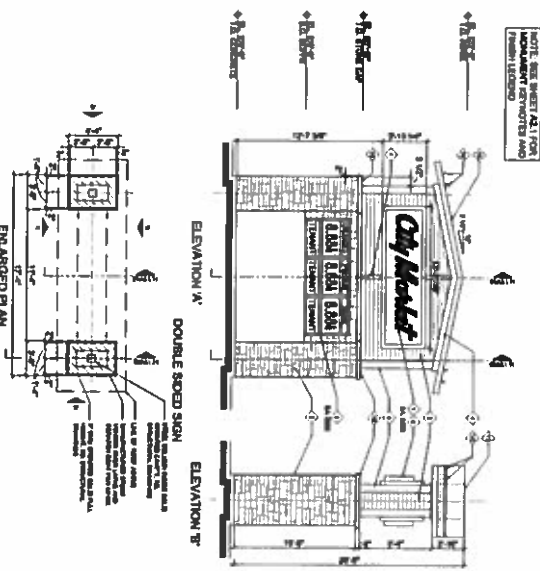
CARBONDALE MARKETPLACE

NIESLANIK AVENUE

03 MONUMENT SIGN AREA
317 SQUARE FEET OF TOTAL SIGNAGE
MAXIMUM OF 50 SQUARE FEET OF SIGNAGE ALLOWED

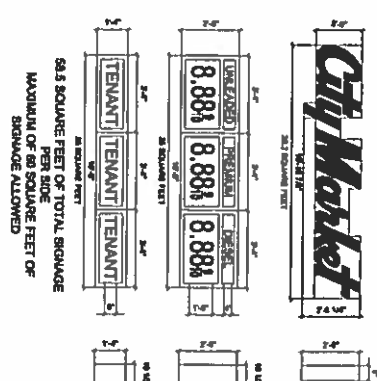


04 MONUMENT SIGN SITE PLAN



05 MONUMENT SIGN AREA

06 MONUMENT SIGN AREA



CityMarket

CITY MARKET
#447
HWY 133
MAIN STREET
CARBONDALE, CO
81623

Naos Design Group, LLC
4000 NORTH BRANCH AVE.
SUITE 200
DENVER, COLORADO 80237
P: 720.360.4301
www.naosdesign.com

d/fab
11111 E. HANCOCK AVE.
DENVER, CO 80231
P: 303.751.1111
www.dfab.com

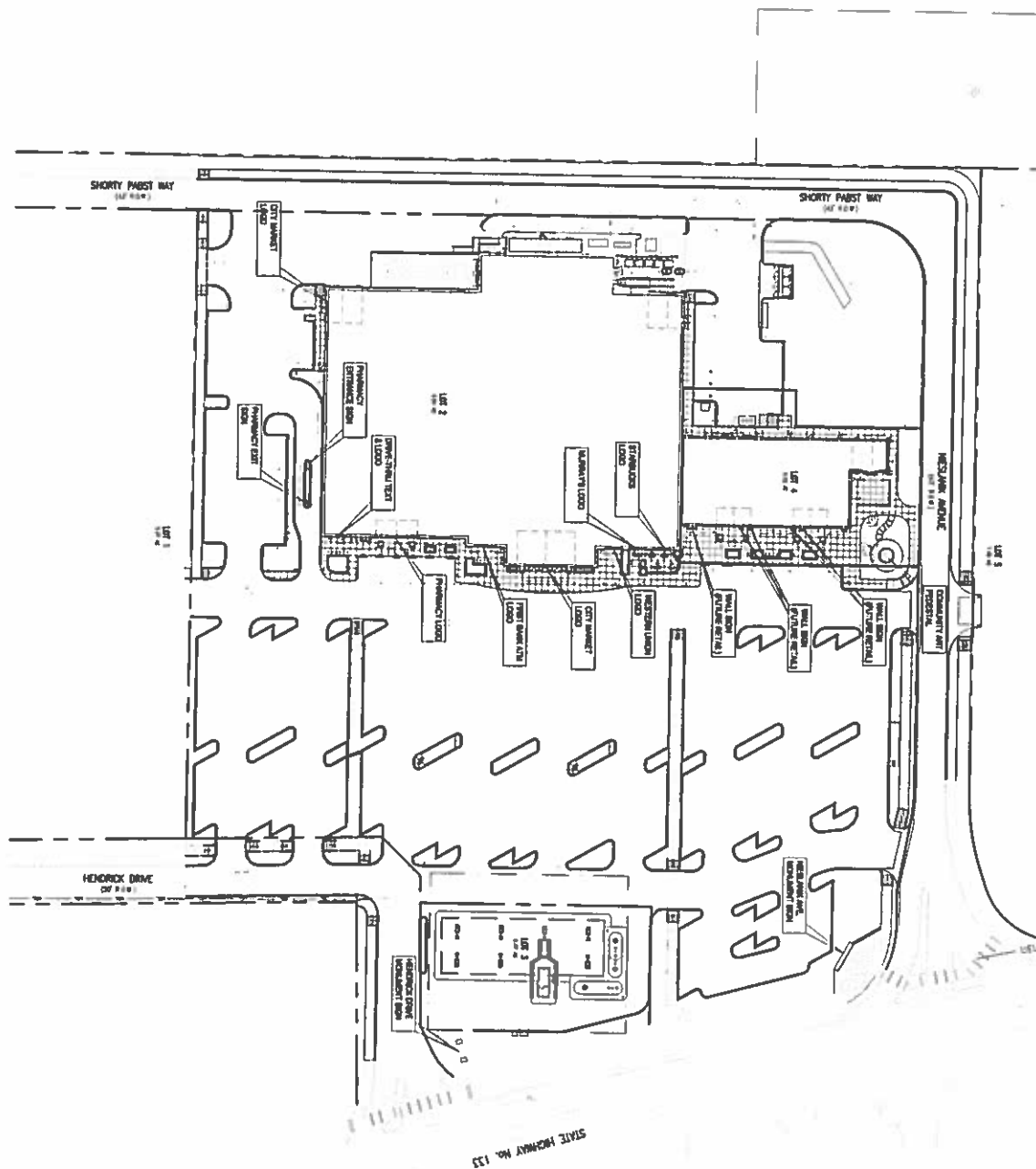
Pickering
Pickering Signs, Inc.
10000 E. 1st Ave.
Suite 100
Denver, CO 80231
P: 303.751.1111
www.pickering.com

Galloway
Galloway Signs, Inc.
10000 E. 1st Ave.
Suite 100
Denver, CO 80231
P: 303.751.1111
www.galloway.com

ISSUE LOG

NO.	REV.	DESCRIPTION	DATE
1	1	ISSUED	02/28/2018
2	1	REVISED	02/28/2018
3	1	REVISED	02/28/2018

A2.4



NOTES



CITY MARKET STORE #447
CO HIGHWAY 133 & MAIN STREET
CARBONDALE, COLORADO

SIGN LOCATION & FEATURES EXHIBIT

[illegible]

Galloway
Paving, Asphalt, Gravel, Concrete
and a wide range of other
paving and construction
services.

EXHIBIT D

PARCELS 2 & 3 SITUATED IN THE NE1/4 SE1/4 SECTION 33,
TOWNSHIP 7 SOUTH, RANGE 88 WEST OF THE 6th P.M.
TOWN OF CARBONDALE, COUNTY OF GARFIELD, STATE OF COLORADO

SHEET 1 OF 1

PARCEL No. 2

A PARCEL OF LAND SITUATED IN THE NE1/4 SE1/4 OF SECTION 33, TOWNSHIP 7 SOUTH, RANGE 88 WEST OF THE SIXTH PRINCIPAL MERIDIAN, CARBONDALE, COLORADO, SAID PARCEL BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE STREET MONUMENT LOCATED AT THE INTERSECTION OF EIGHTH STREET AND MAIN STREET IN THE TOWN OF CARBONDALE, COLORADO;
THENCE N 76°49'42" W 1571.89 FEET TO A POINT BEING IN THE CENTER OF A 20.00 FOOT ROAD EASEMENT;
THENCE N 53°06'59" E ALONG SAID CENTERLINE, 15.47 FEET, THE TRUE POINT OF BEGINNING;
THENCE S 50°57'07" E 41.35 FEET;
THENCE S 27°02'41" W 8.81 FEET;
THENCE S 01°04'57" W 104.19 FEET TO A POINT ON THE NORTHERLY RIGHT-OF-WAY OF COUNTY ROAD NO. 106;
THENCE N. 89°26'00" W ALONG SAID NORTHERLY RIGHT-OF-WAY 142.07 FEET;
THENCE LEAVING SAID NORTHERLY RIGHT-OF-WAY N 00°50'0" W 236.01 FEET;
THENCE N 89°42'26" E 84.45 FEET;
THENCE S 00°36'00" E 48.87 FEET;
THENCE S 76°43'34" E 79.89 FEET TO A POINT ON THE CENTERLINE OF SAID 20.00 FOOT ROAD EASEMENT;
THENCE S 53°06'55" W ALONG SAID CENTERLINE 54.22 FEET TO THE TRUE POINT OF BEGINNING.

ALSO KNOW AS:

PARCEL I, RESUBDIVISION OF VELASQUEZ PROPERTY,
ACCORDING TO THE MAP RECORDED MARCH 28, 1988 AS RECEPTION NO. 390757.

PARCEL No. 3

A PARCEL OF LAND SITUATED IN SECTION 33, TOWNSHIP 7 SOUTH, RANGE 88 WEST OF THE 6th P.M., TOWN OF CARBONDALE, GARFIELD COUNTY, COLORADO AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE INTERSECTION OF EIGHTH STREET AND MAIN STREET IN SAID TOWN OF CARBONDALE;
THENCE N. 76 DEGREES 49'42"W. 1571.89 FEET; THENCE N. 53 DEGREES 06'55"E. 15.47 FEET TO THE TRUE POINT OF BEGINNING; THENCE N. 53 DEGREES 06'55"E. 54.22 FEET; THENCE N. 86 DEGREES 05'41"E. 50.64 FEET; THENCE S. 00 DEGREES 47'17"W. 62.73 FEET; THENCE N. 86 DEGREES 33'02"W. 20.81 FEET; THENCE S. 00 DEGREES 25'47"W. 110.38 FEET TO A POINT ON THE NORTHERLY RIGHT OF WAY LINE OF GARFIELD COUNTY ROAD No. 106; THENCE N. 89 DEGREES 26'00"W. 45.40 FEET ALONG SAID NORTHERLY RIGHT OF WAY LINE; THENCE N. 01 DEGREES 04'57"E. 104.19 FEET; THENCE N. 27 DEGREES 02'41"E. 8.81 FEET; THENCE N. 50 DEGREES 57'07"W. 41.35 FEET TO THE TRUE POINT OF BEGINNING.

ALSO KNOWN AS PARCEL B OF THE SUBDIVISION EXEMPTION PLAT, RECORDED OCTOBER 28, 1985 AS RECEPTION No. 366044, BEGIN A PORTION OF PARCEL A OF AMENDED RE-SUBDIVISION OF SOUTHLAND CORP. PROPERTY.

STATE OF COLORADO
COUNTY OF GARFIELD

SOPRIS ENGINEERING - LLC

CIVIL CONSULTANTS
502 MAIN STREET, SUITE A3
CARBONDALE, COLORADO 81623
(970) 704-0311 SOPRISENG@SOPRISENG.COM

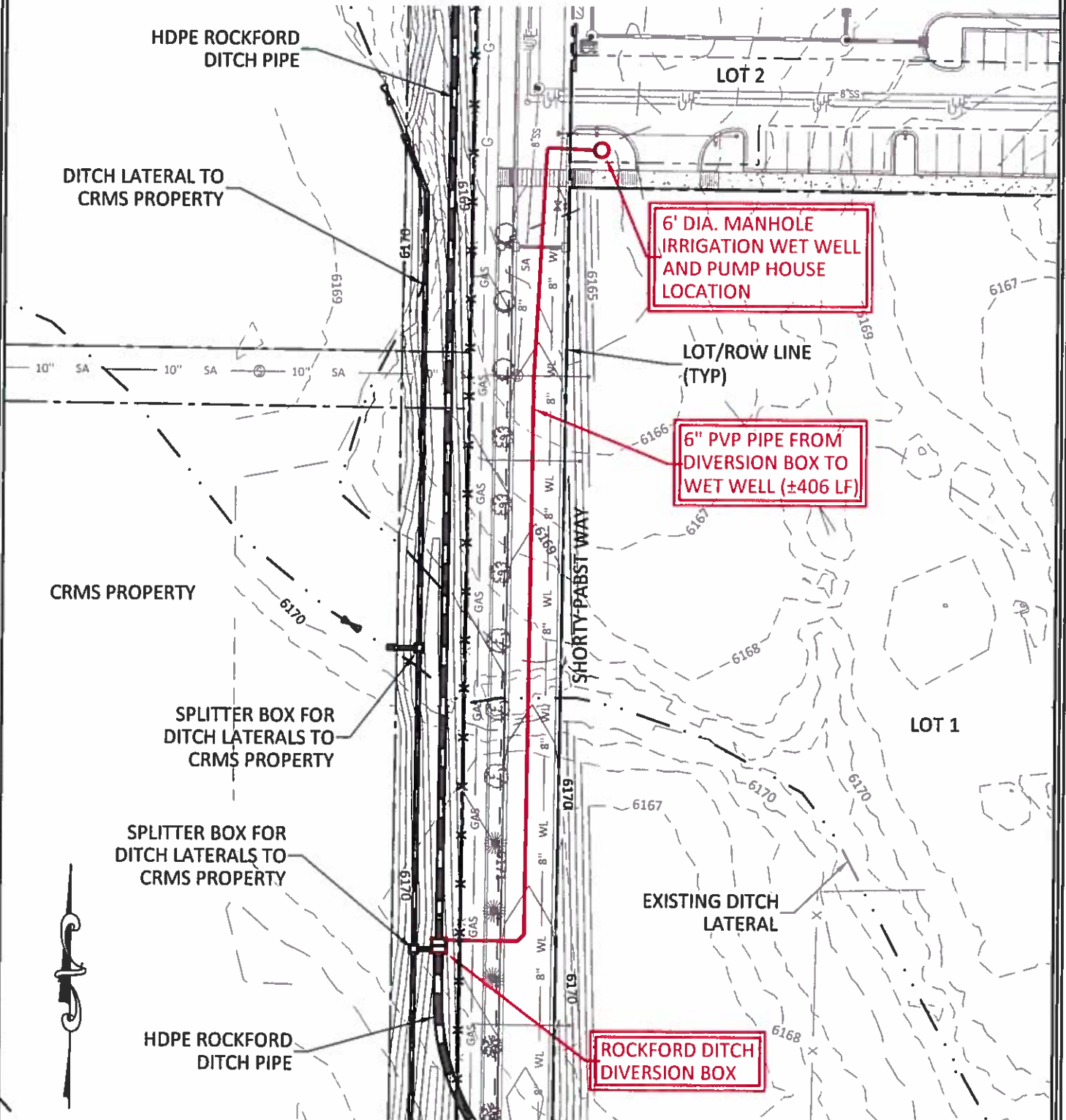
sb 14243 2018-02-07
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Reception#: 903701
02/28/2018 11:03:34 AM Jean Alberico
28 of 28 Rec Fee: \$148.00 Doc Fee: 0.00 GARFIELD COUNTY CO

EXHIBIT E

CARBONDALE CITY MARKET RAW IRRIGATION WATER - SHARED MAINTENANCE

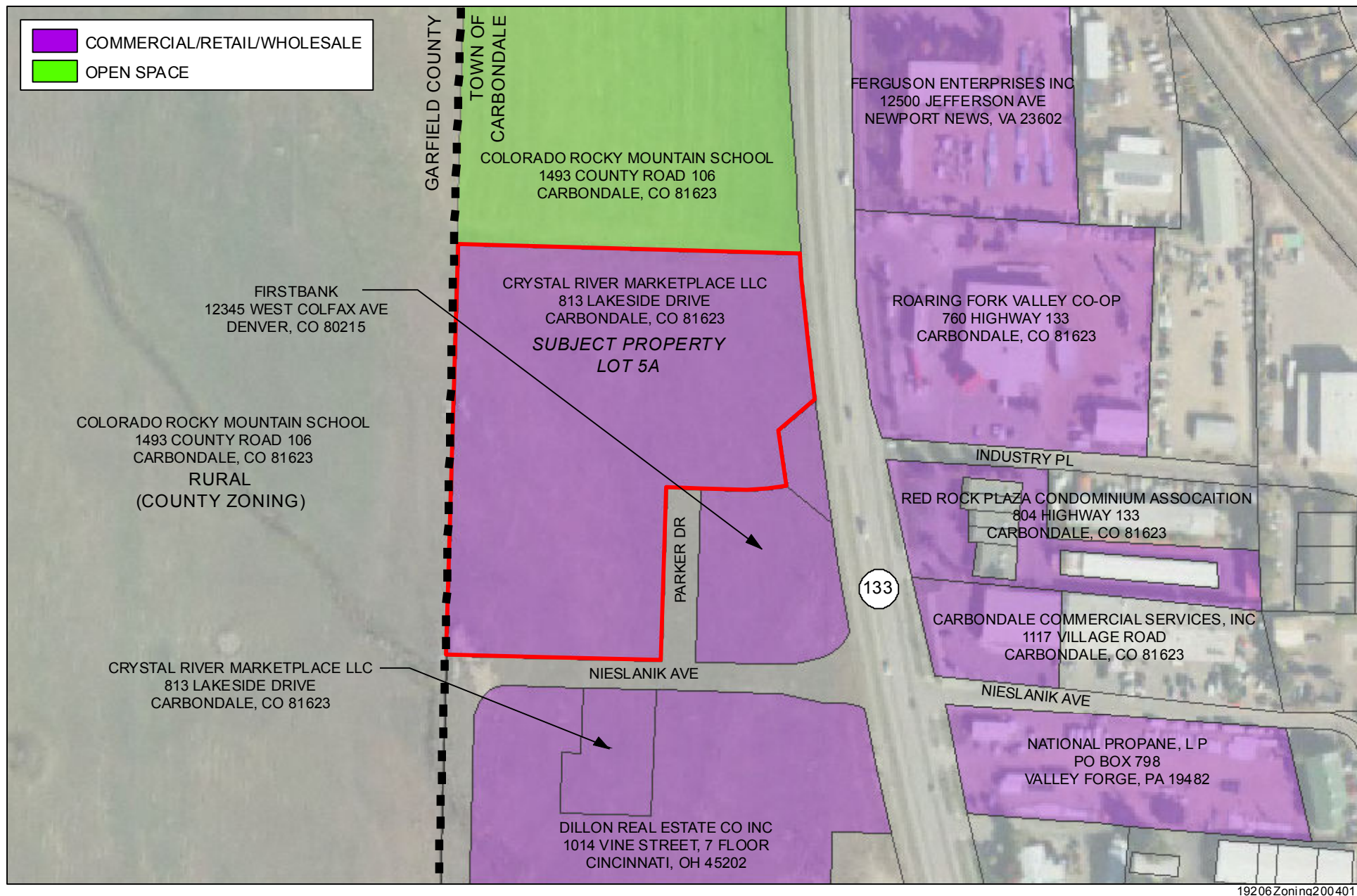


SCALE: 1" = 60'

SOPRIS ENGINEERING - LLC

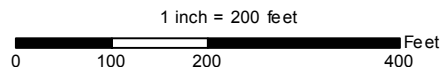
CIVIL CONSULTANTS
502 MAIN STREET, SUITE A3
CARBONDALE, COLORADO 81623
(970) 704-0311

2/12/18



19206 Zoning200401

Exhibit J - Adjoining Properties and Current Land Use



- ZONING : TOC ZONE DISTRICT MAP. 7/10/2018 EDIT
- GIS LAYER INFORMATION : GARFIELD COUNTY GIS 12/30/2019.
- AERIAL : 2017 NAIP FLIGHT 1 METER RESOLUTION - USDA.
- THIS MAP IS INTENDED FOR GENERAL PLANNING PURPOSES ONLY.

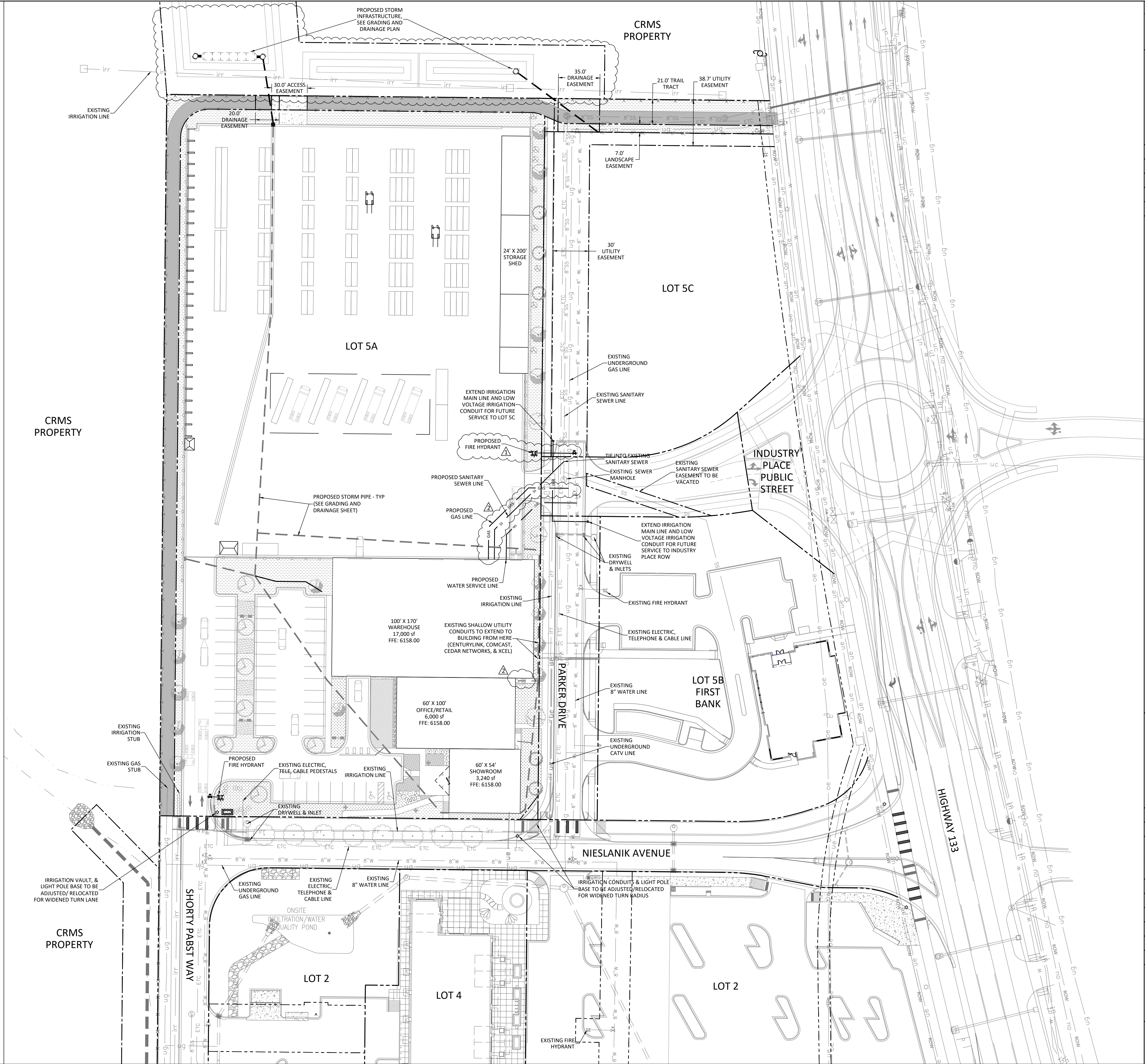


DESIGNED BY	
DRAWN BY	
CHECKED BY	
DATE:	05-12-2020
JOB NO.	19206

LOT 5A, 5C CARBONDALE MARKETPLACE SUBDIVISION
CARBONDALE, COLORADO
MAJOR SITE PLAN REVIEW APPLICATION

DATE	REVISION
04/07/20	ADDED HYDRANT
05/12/20	REVISED EASEMENT & DRAINAGE INFRASTRUCTURE, ADDED GAS LINE, DOOR MOVED

TITLE	UTILITY PLAN
EXHIBIT	K



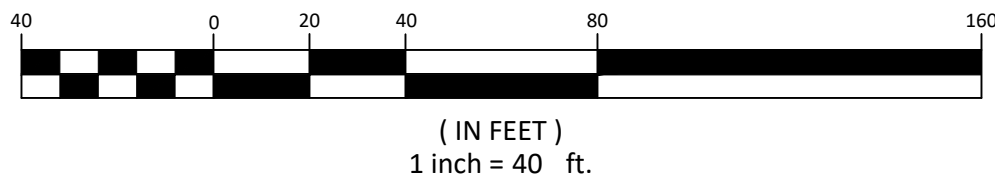
- EXISTING UTILITIES
- ETC
 - 8"W
 - irr
 - ug
 - uc
 - ue
 - 8"SS
 - X
- EXISTING ELECTRIC, TELEPHONE, CABLE
EXISTING 8" WATER
EXISTING IRRIGATION
EXISTING UNDERGROUND GAS
EXISTING UNDERGROUND CABLE
EXISTING UNDERGROUND ELECTRIC
EXISTING 8" SANITARY SEWER
EXISTING FENCE

- PROPOSED UTILITIES
- WL
 - SS
 - GAS
 - SVC
 - GAS
- PROPOSED WATER SERVICE
PROPOSED SANITARY SEWER
PROPOSED GAS SERVICE



Know what's below.
Call before you dig.

CALL 2-BUSINESS DAYS IN ADVANCE
BEFORE YOU DIG, GRADE, OR EXCAVATE
FOR THE MARKING OF UNDERGROUND
MEMBER UTILITIES



Drainage Report

for

Lot 5A & 5C, Carbondale Marketplace Carbondale, CO

Prepared for:
Town of Carbondale: Major Site Plan

Prepared by:

Sopris Engineering, LLC
502 Main Street Suite A3
Carbondale, Colorado 81623

On Behalf of:

Crystal River Marketplace, LLC
20 Sunset Drive, Unit 1,
Basalt, CO 81621

&

Builders First Source
7595 Technology Way, Suite 500
Denver, CO 80237

SE Project Number: 19206.03

May 13, 2020

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II. General Overview & Site Description	2
III. Existing Offsite & Onsite Drainage Basins.....	3
IV. Developed Offsite & Onsite Drainage Basins	3
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VI. Hydraulic Analysis Methods & Assumptions	5
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I. Purpose of Drainage Study

The purpose of this Drainage Study is to:

- Evaluate the existing & historic drainage conditions and estimate flow rates at key design points to compare existing/historic versus post development drainage conditions.
- Estimate 10- and 100-year post development peak runoff rates in support of sizing of stormwater mitigation infrastructure.
- Ensure the detention system has adequate capacity such that post development runoff rates do not exceed existing peak runoff rates for the 10- and 100-year storm events.
- Provide Best Management Practice (BMP) recommendations to minimize sediment transport offsite

II. General Overview & Site Description

This drainage study has been prepared for Lot 5A and Lot 5C of the Carbondale Marketplace Subdivision in Carbondale, CO. Lot 5A is a proposed Lumber Yard. Development of Lot 5C is undetermined at this time, but we have assumed a minimum of 20% open space in order to size the offsite storm water infrastructure. Both lots will share a storm water retention area which is located directly north of Lot 5A. The existing conditions and proposed grading & drainage are shown on the civil plans. The drainage basins and conditions are illustrated on Exhibit 1 (attached).

Lot 5A is located directly north of Nieslanik Avenue and the new City Market development, west of Parker Drive and Lot 5C, east and south of the Colorado Rocky Mountain School (CRMS) open pasture lands. The drainage basin area is 4.45 acres, which includes Lot 5A and the proposed trail parcel which is on the west and north side of the parcel. The existing site is currently not developed and is historic grazing and crop land.

Lot 5C is the newly platted parcel subdivided from Lot 5A. The parcel is located directly north of Lot 5B, west of State Highway 133, east of Lot 5A, and south of the Colorado Rocky Mountain School (CRMS) open pasture lands. The drainage basin area is 1.33 acres, which includes Lot 5C and the proposed trail parcel on the north side of the parcel. The existing site is currently not developed and is historic grazing and crop land.

Lot 5A will be developed as a lumber yard. Refer to site and building documents for development details. Lot 5C is proposed future development. As noted above, we have assumed 80% impervious and 20% pervious open space to size the storm water infrastructure. Both parcels are directly adjacent to the drainage easement parcel on the CRMS property. This area will be used as the primary storm water retention system for the development which is further described in section VII below.

The onsite soils consist of Type 'B' Hydrologic Soils, according to the soil survey provided by the National Resource Conservation Service (NRCS). Type 'B' soils are conducive to moderate infiltration rates with moderately well drained soils. The subject property also falls within Zone C on FEMA Flood Insurance Rate Map panel number 0802341858 A with a revised date of February

5, 1986. FEMA designates Zone C as minimal risk areas outside the 0.2% (500 year storm) annual chance floodplain.

III. Existing Offsite & Onsite Drainage Basins

The existing drainage conditions were analyzed in order to estimate historic and existing peak stormwater flow rates affecting the site and were based on site survey topography and site visits. Existing design points were also established at general discharge locations for comparison between historic and post development drainage conditions. The resultant basins along with the established design point locations are described in greater detail below, and are illustrated on Exhibit 1 (attached).

Offsite Existing:

No offsite stormwater runoff enters Lot 5A. The City Market development is directly south of Lot 5A, and has a large retention pond in the northwest corner of the site. Per the drainage study prepared for City Market the 100 year storm event is retained and infiltrated onsite. The City Market parcel also has a drywell in the curb directly adjacent to Lot 5A. The sidewalk on the north side of the Nieslanik Avenue ROW will slope to the south to the drywell.

The recently constructed Parker Drive and First Bank (Lot 5B) is southeast of Lot 5A and south of Lot 5C. Parker Drive was constructed with two inlets on the north end that connect to a drywell. Lot 5B was designed to detain the pre-post detention for the site. Any additional stormwater runoff will be safely routed in the road extension north of Parker Drive and through Lot 5C.

Industrial Lane ROW is now proposed, which is just north of the developed Lot 5B and south of Lot 5C. This area has not been designed but we have assumed the drainage will be built, with pre-post storage infrastructure at a minimum, consistent with the rest of the ROW areas within Carbondale Marketplace.

Onsite Existing:

Existing Basin 05A (EX-05A) is the Lot 5A drainage basin. The onsite areas are undeveloped, and are historic grazing and crop land. The site generally slopes to the north, with a low swale flows from the center to the northwest corner of the basin. The site appears to drain well, with no evidence of long term ponding. We have designated northwest corner as Design Point #1 (DP#5A).

Existing Basin 05C (EX-05C) is the Lot 5C drainage basin. The onsite areas are undeveloped, and are historic grazing and crop land. The site generally slopes to the north, with local high and low points. The site appears to drain well, with no evidence of long term ponding. We have designated northwest corner as Design Point #1 (DP#5C).

IV. Developed Offsite & Onsite Drainage Basins

We have considered the overall development site improvements for each lot in order to size and describe the site storm water storage infrastructure. We also have subdivided the development site in order to properly estimate peak runoff and size the proposed storm water mitigation infrastructure. The proposed drainage basins are described in more detail below.

Developed Basin DE-05A is the Lot 5A developed basin. The basin includes the proposed lumber yard building, parking, storage yard area, and landscape areas. The basin also includes the

proposed path and landscape strip on the west and north property lines. The storm water runoff will flow on the surface and in pipes to the offsite storm water retention pond. Roof drains will connect to underground storm pipes, and area inlets are included where necessary to collect the storm water runoff. The site storm water system has been designed to detain the entire 100 year 1 hour storm. The retention system design is described in more detail in section VII below.

SE also performed a preliminary analysis of the developed site's drainage sub basins of DE-05A. The site storm system shown on the civil plans sheets is preliminary, but it shows proposed storm water drainage paths, drain inlets and pipes. The sub basins were delineated to provide an initial review of the peak stormwater flow onsite. The storm sewer system will convey the peak flow in the pipes and on the surface to the offsite retention pond. Final drainage calculations and details showing storm sewer capacity will be provided for the building permit submittal. The general hydraulic pipe sizing calculations are included in section VI below.

Developed Basin DE-05C is the Lot 5C developed basin. The basin includes the future development parcel and also includes the proposed path and landscape strip on the north property line. As mentioned above, we have assumed the maximum amount of impervious to coincide with the minimum open space requirement. The storm water runoff will flow on the surface and in pipes to the offsite storm water retention pond, and area inlets will be used where necessary to collect the storm water runoff. With the assumption above the site storm water system has been designed to detain the entire 100 year 1 hour storm. The retention system design is described in more detail in section VII below.

The methodology for estimating post development peak runoff rates for the 10- and 100-yr storm events are discussed in Section V below and the results are summarized within Table 1.

V. Hydrologic Analysis Methods & Assumptions

Onsite and offsite drainage areas were analyzed using the Rational Method (Equation 1) since the cumulative total of tributary offsite basins and subject property being studied was less than 90 acres.

$$\text{Equation 1: } Q = C * I * A$$

Q = Runoff Flow Rate (cfs); C = Runoff Coefficient

I = Rainfall Intensity (in/hr); A = Area of Basin (acres)

The runoff coefficient (C) is a variable that represents the ratio of runoff to rainfall volumes during a storm event. The determination of C mainly depends on the soil type, watershed impervious and storm event frequency. Each drainage basin was studied to determine the percent of impervious area. As noted in the basin descriptions in Section III, the onsite portion of existing basins EX-1 was assumed to be 0% impervious which correlates to 10- and 100-year runoff coefficients of 0.15 and 0.35, respectively. The Urban Drainage Flood Control District (UDFCD) out of Denver, CO has developed runoff coefficient tables using the total or effective percent impervious area in Chapter 6 of Volume 1 of their Urban Storm Drainage Criteria Manual. Runoff coefficients are based on the amount of runoff and the storm event. Table 6-5 is included for reference in Appendix A of this report. This table was used to determine the corresponding 10- and 100-year weighted average runoff coefficients based on a Type B hydrologic soil classification.

The design rainfall duration used in the Rational Method is referred to as the time of concentration. The time of concentration is the cumulative travel time, including overland flow and channelized flow, for runoff to get from the furthest point upstream of a basin to a designated design point. A minimum time of concentration of 10 minutes was used for all basins given the travel distances. Based on the Town of Carbondale's Intensity Duration Frequency (IDF) Curve, the 10- and 100-year 10-minute time of concentration rainfall intensities are 2.68 in/hr and 4.37 in/hr, respectively.

The site has been analyzed for the peak rainfall runoff for storm water system sizing, and also has been analyzed for the 1 hour storm event for detention/retention system sizing. A summary of the 10 year and 100 year estimated peak runoff rates analyzed for this project are summarized in Table 1 below:

Table 1: Existing and Post Development Peak Runoff Summary

10-YR EXISTING PEAK RUNOFF SUMMARY						DESIGN POINT ID	100-YR EX. PEAK RUNOFF SUMMARY				
BASIN I.D.	% IMPERV.	C ₁₀	I ₁₀ (in/hr)	AREA (acres)	Q ₁₀ (cfs)		BASIN I.D.	C ₁₀₀	I ₁₀₀ (in/hr)	AREA (acres)	Q ₁₀₀ (cfs)
EX-05A	0%	0.15	2.68	4.449	1.79	DP 5A	EX-05A	0.35	4.37	4.449	6.80
EX-05C	0%	0.15	2.68	1.329	0.53	DP 5C	EX-05C	0.35	4.37	1.329	2.03
10-YR DEVELOPED PEAK RUNOFF SUMMARY							100-YR DEV. PEAK RUNOFF SUMMARY				
DE-05A	86%	0.70	2.68	4.449	8.35	DP 5A	DE-05A	0.76	4.37	4.449	14.78
DE-05C	80%	0.63	2.68	1.329	2.24	DP 5C	DE-05C	0.70	4.37	1.329	4.06

For detention mitigation onsite, we have used the modified rational method. Refer to section VII below for more detail on the site detention mitigation. The detention runoff rates for this project are summarized in Table 2 below.

Table 2: Existing and Post Development Detention Runoff Summary

10-YR EXISTING DETENTION RUNOFF SUMMARY						DESIGN POINT ID	100-YR EX. DETENTION RUNOFF SUMMARY				
BASIN I.D.	% IMPERV.	C ₁₀	I ₁₀ (in/hr)	AREA (acres)	Q ₁₀ (cfs)		BASIN I.D.	C ₁₀₀	I ₁₀₀ (in/hr)	AREA (acres)	Q ₁₀₀ (cfs)
EX-05A	0%	0.15	0.777	4.449	0.519	DP 5A	EX-05A	0.35	1.19	4.449	1.853
EX-05C	0%	0.15	0.777	1.329	0.155	DP 5C	EX-05C	0.35	1.19	1.329	0.553
10-YR DEVELOPED DETENTION RUNOFF SUMMARY							100-YR DEV. DETENTION RUNOFF SUMMARY				
DE-05A	86%	0.70	0.777	4.449	2.420	DP 5A	DE-05A	0.76	1.19	4.449	4.024
DE-05C	80%	0.63	0.777	1.329	0.650	DP 5C	DE-05C	0.70	1.19	1.329	1.107

Supporting data can be found within Appendix A of this report.

VI. Hydraulic Analysis Methods & Assumptions

Storm water runoff will be routed on the surface via sheet flow and in drainage swales, and then will be routed in storm sewer pipes to the underground retention / infiltration system(s). The pipes onsite have been preliminarily sized according to the approximate design flow, and are shown on the civil grading plan. Each of the gravity storm channels were sized using Manning's Equation (Equation 2).

Equation 2: $Q = 1.49/n * R^{2/3} * A * S^{0.5}$

Q = Runoff Flow Rate (cfs); n = Manning's Roughness Coefficient
 R = Hydraulic Radius (ft); A = Flow Area (sf), S = Channel Slope (ft/ft)

The hydraulic capacity calculations have been separated by standard pipe sizes for site storm water drainage with a minimum 2% slope. In general the pipes onsite collect storm water from small subareas within the larger drainage basins. The approximate maximum capacity of each size storm pipe is summarized in Table 3 below.

Table 3: Hydraulic Pipe capacity

Pipe Size (IN)	Pipe Material	Manning's n	Slope	Capacity (CFS)
4	Solid PVC	0.011	2.00%	0.33
6	Solid PVC	0.011	2.00%	1.00
8	Solid PVC	0.011	2.00%	2.18
12	ADS N12	0.011	2.00%	6.40

The final hydraulic capacity calculations will be completed for the building permit submittal. Supporting hydraulic data for all of the calculations has been provided within Appendix B.

VII. Detention Mitigation Analysis & Design

The primary drainage criterion within the Town of Carbondale includes detaining/retaining stormwater runoff onsite such that post development runoff rates exiting the site do not exceed historic levels. Lot 5A and Lot 5C are directly adjacent to the offsite storm water drainage easement area. The easement is part of a larger agricultural field, and it is our understanding that it will remain as an open field. Because future development downstream of the easement area is unknown, and because there is adequate room for storage, the site storm water system has been sized to completely retain the developed 100 year - 1 hour storm event.

Note the shorter duration high intensity storms have higher runoff rates, but the storm water runoff volume is smaller than the longer duration storms. As the storm water system retains storm events up to the 1 hour event, the shorter duration events are also retained. Also note that the storage volume calculations do not account for any infiltration, so the design provides a further conservative analysis.

Table 4 summarizes the 100 year - 1 hour existing and post development peak runoff rates contributing runoff at each design point, and also summarizes the required and provided storage volumes to size the proposed storm water detention mitigation.

Table 4: Detention Runoff Rates and storage volume:

100 YEAR - 1 HOUR STORAGE SUMMARY						
DESIGN PT I.D.	EX Q₁₀₀ (cfs)	DE Q₁₀₀ (cfs)	+/- Q (cfs)	DET. REQ. (cf) [1]	POST DET Q₁₀₀ (cfs)	+/- DET. PROV. (cf)
DP 5A	1.85	4.02	2.17	7,879	0.00	19,250
DP 5C	0.55	1.11	0.55	2,009	0.00	5,110

[1] REQUIRED DETENTION CALCULATED USING THE RATIONAL METHOD DETENTION VOLUME APPROACH.

DP 5A		
Duration=	60	minutes
P =	1.19	
RUNOFF VOLUME - $V_r = C * (P/12) * A$		
BASIN	Vr	Vr
I.D.	(ac-ft)	(CF)
EX-1	0.154	6,726
DE-1	0.335	14,605

DP 5C		
Duration=	60	minutes
P =	1.19	
RUNOFF VOLUME - $V_r = C * (P/12) * A$		
BASIN	Vr	Vr
I.D.	(ac-ft)	(CF)
EX-1	0.046	2,009
DE-1	0.092	4,018

The Rational Method Detention Volume approach was used to estimate the required storage volume for the project. The proposed retention mitigation improvements include drywells and underground storage chambers.

Retention Pond Design:

Basin 5A retention has a maximum storage depth of 1.5 feet. The bottom of the pond slopes down at 0.5% from east to west. Based on the NRCS soils data as well as our experience working on this parcel, the underlying soils consist of gravel with cobbles which are ideal for infiltrating water. The retention basin includes two drywells which are connected by underground infiltration chambers. The linear layout has a benefit over drywells in that it provides additional infiltration potential. It also helps maintain infiltration if any one structure is clogged.

Basin 5C retention has a maximum storage depth of 2.0 feet. The retention is separated into two small basins. The west retention slopes down at 0.5% from west to east. The east retention is on an existing ridge so there is no slope in the bottom. As this pond is provided for future development, one drywell and a storm sewer pipe extending to the lot are proposed at this time. This allows for future connection when development improvements are constructed. Additional storage infiltration may be required pending final design details onsite.

For estimating the time to drain the ponds, we have assumed an infiltration rate of 5" per hour for the below ground infiltration. For the surface of the ponds we have assumed an infiltration rate of 0.5" per hour. The drain time for each pond is summarized in Table 5 below.

Table 5: Pond infiltration/drain time:

POND ID	DRYWELL INFILTRATION			SURFACE INFILTRATION			+/- DET. PROV. (cf)	DRAIN TIME (HR)
	AREA (SF)+/-	RATE (IN/HR)	VOL/HR (CF)	AREA (SF)+/-	RATE (IN/HR)	VOL/HR (CF)		
DE-05A	650	5	270.8	14,575	0.5	607.3	14,605	16.6
DE-05C	64	5	26.7	2,880	0.5	120.0	4,018	27.4

For the ground surface of the retention area, we understand that the area will likely be maintained as irrigated pasture land. These infiltration rates should represent a conservative estimate, which will provide for long term function of the retention system. Flows larger than the 100 year 1 hour storm will simply stage up and flow to the north and northwest following existing drainage patterns. Final detention pond design and details will be provided for the building permit submittal.

VIII. Sediment and Erosion Control

Current practice standards provide parameters for mitigation of drainage and soil erosion activities relative to site development. Appropriate best management practices (BMP's) shall be applied to this site. These BMP's are primarily grouped for two stages of the development, the construction phase and the post development phase, with the main emphasis on soil erosion and sediment transport controls.

Temporary Erosion Control during the construction phase for the proposed improvements there will be potential for soil erosion and offsite sediment transport triggered by surface runoff during rain events. The contractor must at a minimum install and maintain the following BMPs during the construction phase:

- ✓ An embedded silt fence around the disturbed soils and especially in the low receiving ends of the slopes.
- ✓ Prior to any clearing and grubbing, lot grading, and prior to any construction work, the contractor must construct temporary sediment basins in strategically located areas in order to collect runoff sediment and stop sediment from traveling offsite.
- ✓ The site must be inspected at the end of every 14-day period during construction, and silt deposits from behind the silt fencing and from the sediment pits must be removed regularly to ensure full functioning of this erosion control system. These activities must be logged in a logbook available at the site for inspection at all times.
- ✓ Vehicle tracking pads (mud racks) at the site entrance(s) must be installed to avoid mud tracking into public right of way.
- ✓ Seed & mulch must be placed over disturbed cut and fill slopes, and watered as necessary, to establish temporary vegetative ground cover until paving, gravel surface and/or landscaping is done.

A construction site can be a very dynamic area; because of this the final location and selection of construction BMPs will be left up to the contractor. All appropriate permitting must be acquired prior to commencing construction and the criteria outlined within all appropriate permits must be adhered to until the associated permits have been closed.

Permanent BMPs shall consist of a complete landscaping and ground covering task to permanently re-vegetate and cover bare grounds that will remain open space to avoid long-term soil erosion. This effort will reduce the risk of unnecessary degradation and failure of the drainage system. Temporary erosion control structures installed during construction shall be left in place as necessary and maintained until new vegetation has been reestablished at a 70% level. Upon reaching a satisfactory level of soil stabilization from the new vegetation, all erosion control structures shall be removed; with the exception of the proposed sediment/retention basins. These should remain in place until they become a conflict with future improvements.

IX. Conclusions

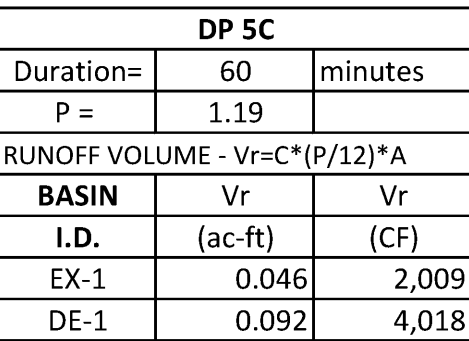
The results of this drainage study suggest that no adverse drainage impacts to the subject property or surrounding properties will result from the proposed development. Although onsite peak runoff rates will increase with the added improvements, the site storm water improvements and retention pond will eliminate any increase in stormwater runoff leaving the site. Best Management Practices (BMPs) have been identified and will be implemented during the construction of the improvements. In addition, permanent vegetated cover should be installed as soon as construction allows.

APPENDIX A

UDFCD Rational C tables
NOAA 14 Carbondale IDF Curve
NRCS Soils Map

MAJOR SITE PLAN

DATE	REVISION
TITLE	
DRAINAGE BASIN PLAN	
DRAWING NO.	
EXHIBIT 1	



GRAPHIC SCALE

(IN FEET)
1 inch = 40 ft.

The diagram shows a vertical stack of horizontal lines representing contour intervals. From top to bottom: a dashed line labeled 'EX. CONTOUR', a solid line labeled '7900' labeled 'EX. CONTOUR INTERVAL', a thick solid line labeled 'EX & PROP. DRAINAGE BASIN', a solid line labeled '7900' labeled 'PROP. CONTOUR', and a solid line labeled '7900' labeled 'PROP. CONTOUR INTERVAL'. Below these lines is a triangle labeled 'DP #' labeled 'DESIGN POINT'.



Table RO-5— Runoff Coefficients, *C*

Percentage Imperviousness	Type C and D NRCS Hydrologic Soil Groups					
	2-yr	5-yr	10-yr	25-yr	50-yr	100-yr
0%	0.04	0.15	0.25	0.37	0.44	0.50
5%	0.08	0.18	0.28	0.39	0.46	0.52
10%	0.11	0.21	0.30	0.41	0.47	0.53
15%	0.14	0.24	0.32	0.43	0.49	0.54
20%	0.17	0.26	0.34	0.44	0.50	0.55
25%	0.20	0.28	0.36	0.46	0.51	0.56
30%	0.22	0.30	0.38	0.47	0.52	0.57
35%	0.25	0.33	0.40	0.48	0.53	0.57
40%	0.28	0.35	0.42	0.50	0.54	0.58
45%	0.31	0.37	0.44	0.51	0.55	0.59
50%	0.34	0.40	0.46	0.53	0.57	0.60
55%	0.37	0.43	0.48	0.55	0.58	0.62
60%	0.41	0.46	0.51	0.57	0.60	0.63
65%	0.45	0.49	0.54	0.59	0.62	0.65
70%	0.49	0.53	0.57	0.62	0.65	0.68
75%	0.54	0.58	0.62	0.66	0.68	0.71
80%	0.60	0.63	0.66	0.70	0.72	0.74
85%	0.66	0.68	0.71	0.75	0.77	0.79
90%	0.73	0.75	0.77	0.80	0.82	0.83
95%	0.80	0.82	0.84	0.87	0.88	0.89
100%	0.89	0.90	0.92	0.94	0.95	0.96
TYPE B NRCS HYDROLOGIC SOILS GROUP						
0%	0.02	0.08	0.15	0.25	0.30	0.35
5%	0.04	0.10	0.19	0.28	0.33	0.38
10%	0.06	0.14	0.22	0.31	0.36	0.40
15%	0.08	0.17	0.25	0.33	0.38	0.42
20%	0.12	0.20	0.27	0.35	0.40	0.44
25%	0.15	0.22	0.30	0.37	0.41	0.46
30%	0.18	0.25	0.32	0.39	0.43	0.47
35%	0.20	0.27	0.34	0.41	0.44	0.48
40%	0.23	0.30	0.36	0.42	0.46	0.50
45%	0.26	0.32	0.38	0.44	0.48	0.51
50%	0.29	0.35	0.40	0.46	0.49	0.52
55%	0.33	0.38	0.43	0.48	0.51	0.54
60%	0.37	0.41	0.46	0.51	0.54	0.56
65%	0.41	0.45	0.49	0.54	0.57	0.59
70%	0.45	0.49	0.53	0.58	0.60	0.62
75%	0.51	0.54	0.58	0.62	0.64	0.66
80%	0.57	0.59	0.63	0.66	0.68	0.70
85%	0.63	0.66	0.69	0.72	0.73	0.75
90%	0.71	0.73	0.75	0.78	0.80	0.81
95%	0.79	0.81	0.83	0.85	0.87	0.88
100%	0.89	0.90	0.92	0.94	0.95	0.96



NOAA Atlas 14, Volume 8, Version 2
 Location name: Carbondale, Colorado, US*
 Latitude: 39.4011°, Longitude: -107.2142°
 Elevation: 6174 ft*
 * source: Google Maps



POINT PRECIPITATION FREQUENCY ESTIMATES

Sanja Perica, Deborah Martin, Sandra Pavlovic, Ishani Roy, Michael St. Laurent, Carl Trypaluk, Dale Unruh, Michael Yekta, Geoffrey Bonnin

NOAA, National Weather Service, Silver Spring, Maryland

[PF_tabular](#) | [PF_graphical](#) | [Maps_&_aerials](#)

PF tabular

PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches/hour) ¹										
Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	1.30 (1.03-1.67)	1.92 (1.52-2.48)	2.89 (2.29-3.74)	3.66 (2.87-4.76)	4.63 (3.44-6.18)	5.33 (3.89-7.26)	5.96 (4.20-8.40)	6.58 (4.42-9.56)	7.30 (4.70-11.0)	7.78 (4.92-12.1)
10-min	0.948 (0.750-1.22)	1.40 (1.12-1.81)	2.12 (1.67-2.74)	2.68 (2.10-3.49)	3.39 (2.53-4.53)	3.89 (2.84-5.32)	4.37 (3.07-6.15)	4.81 (3.23-7.00)	5.34 (3.44-8.05)	5.69 (3.61-8.85)
15-min	0.768 (0.612-0.992)	1.14 (0.908-1.48)	1.72 (1.36-2.23)	2.18 (1.71-2.83)	2.76 (2.05-3.68)	3.17 (2.31-4.32)	3.55 (2.50-5.00)	3.91 (2.63-5.70)	4.34 (2.80-6.55)	4.63 (2.93-7.20)
30-min	0.518 (0.410-0.666)	0.742 (0.588-0.958)	1.09 (0.860-1.41)	1.36 (1.07-1.77)	1.70 (1.26-2.26)	1.94 (1.41-2.64)	2.16 (1.52-3.03)	2.36 (1.59-3.43)	2.59 (1.67-3.91)	2.75 (1.74-4.27)
60-min	0.344 (0.273-0.443)	0.459 (0.364-0.593)	0.638 (0.504-0.827)	0.777 (0.610-1.01)	0.953 (0.711-1.27)	1.08 (0.787-1.47)	1.19 (0.840-1.68)	1.30 (0.874-1.89)	1.42 (0.920-2.15)	1.51 (0.954-2.34)
2-hr	0.214 (0.172-0.273)	0.274 (0.220-0.349)	0.366 (0.292-0.468)	0.438 (0.348-0.562)	0.529 (0.400-0.697)	0.594 (0.439-0.799)	0.654 (0.466-0.908)	0.710 (0.483-1.02)	0.776 (0.506-1.15)	0.820 (0.524-1.26)
3-hr	0.168 (0.136-0.212)	0.204 (0.165-0.258)	0.260 (0.209-0.330)	0.305 (0.244-0.389)	0.363 (0.277-0.476)	0.405 (0.302-0.542)	0.444 (0.319-0.613)	0.482 (0.331-0.688)	0.528 (0.348-0.781)	0.560 (0.360-0.851)
6-hr	0.111 (0.091-0.138)	0.126 (0.103-0.157)	0.151 (0.123-0.189)	0.172 (0.139-0.217)	0.202 (0.157-0.264)	0.225 (0.171-0.299)	0.248 (0.182-0.341)	0.272 (0.190-0.386)	0.304 (0.204-0.447)	0.329 (0.214-0.493)
12-hr	0.069 (0.057-0.085)	0.078 (0.064-0.096)	0.094 (0.077-0.116)	0.107 (0.088-0.133)	0.127 (0.100-0.164)	0.143 (0.110-0.188)	0.159 (0.118-0.216)	0.176 (0.124-0.247)	0.200 (0.135-0.290)	0.218 (0.143-0.322)
24-hr	0.042 (0.035-0.051)	0.048 (0.040-0.058)	0.058 (0.049-0.071)	0.067 (0.056-0.083)	0.081 (0.064-0.103)	0.091 (0.071-0.119)	0.102 (0.077-0.137)	0.114 (0.082-0.158)	0.131 (0.089-0.187)	0.143 (0.095-0.209)
2-day	0.025 (0.021-0.030)	0.028 (0.024-0.034)	0.035 (0.029-0.042)	0.040 (0.034-0.048)	0.048 (0.039-0.061)	0.055 (0.043-0.070)	0.061 (0.046-0.081)	0.069 (0.050-0.094)	0.079 (0.054-0.111)	0.087 (0.058-0.124)
3-day	0.018 (0.016-0.022)	0.021 (0.018-0.025)	0.026 (0.022-0.030)	0.029 (0.025-0.035)	0.035 (0.029-0.044)	0.040 (0.032-0.051)	0.045 (0.034-0.058)	0.050 (0.036-0.067)	0.057 (0.040-0.079)	0.062 (0.042-0.088)
4-day	0.015 (0.013-0.018)	0.017 (0.015-0.020)	0.021 (0.018-0.024)	0.024 (0.020-0.028)	0.028 (0.023-0.035)	0.032 (0.025-0.040)	0.035 (0.027-0.046)	0.039 (0.029-0.053)	0.045 (0.031-0.062)	0.049 (0.033-0.069)
7-day	0.010 (0.009-0.012)	0.011 (0.010-0.013)	0.014 (0.012-0.016)	0.016 (0.013-0.018)	0.018 (0.015-0.022)	0.020 (0.016-0.025)	0.022 (0.017-0.029)	0.025 (0.018-0.033)	0.028 (0.020-0.038)	0.030 (0.021-0.042)
10-day	0.008 (0.007-0.009)	0.009 (0.008-0.011)	0.011 (0.009-0.012)	0.012 (0.010-0.014)	0.014 (0.012-0.017)	0.016 (0.013-0.019)	0.017 (0.013-0.022)	0.019 (0.014-0.025)	0.021 (0.015-0.028)	0.023 (0.016-0.031)
20-day	0.005 (0.005-0.006)	0.006 (0.005-0.007)	0.007 (0.006-0.008)	0.008 (0.007-0.009)	0.009 (0.008-0.011)	0.010 (0.008-0.012)	0.011 (0.008-0.014)	0.012 (0.009-0.015)	0.013 (0.009-0.017)	0.014 (0.010-0.019)
30-day	0.004 (0.004-0.005)	0.005 (0.004-0.006)	0.006 (0.005-0.006)	0.006 (0.006-0.007)	0.007 (0.006-0.009)	0.008 (0.007-0.009)	0.009 (0.007-0.011)	0.009 (0.007-0.012)	0.010 (0.007-0.013)	0.011 (0.008-0.015)
45-day	0.004 (0.003-0.004)	0.004 (0.004-0.005)	0.005 (0.004-0.005)	0.005 (0.005-0.006)	0.006 (0.005-0.007)	0.006 (0.005-0.008)	0.007 (0.006-0.009)	0.007 (0.006-0.009)	0.008 (0.006-0.011)	0.009 (0.006-0.011)
60-day	0.003 (0.003-0.003)	0.003 (0.003-0.004)	0.004 (0.004-0.005)	0.005 (0.004-0.005)	0.005 (0.004-0.006)	0.006 (0.005-0.007)	0.006 (0.005-0.007)	0.006 (0.005-0.008)	0.007 (0.005-0.009)	0.007 (0.005-0.010)

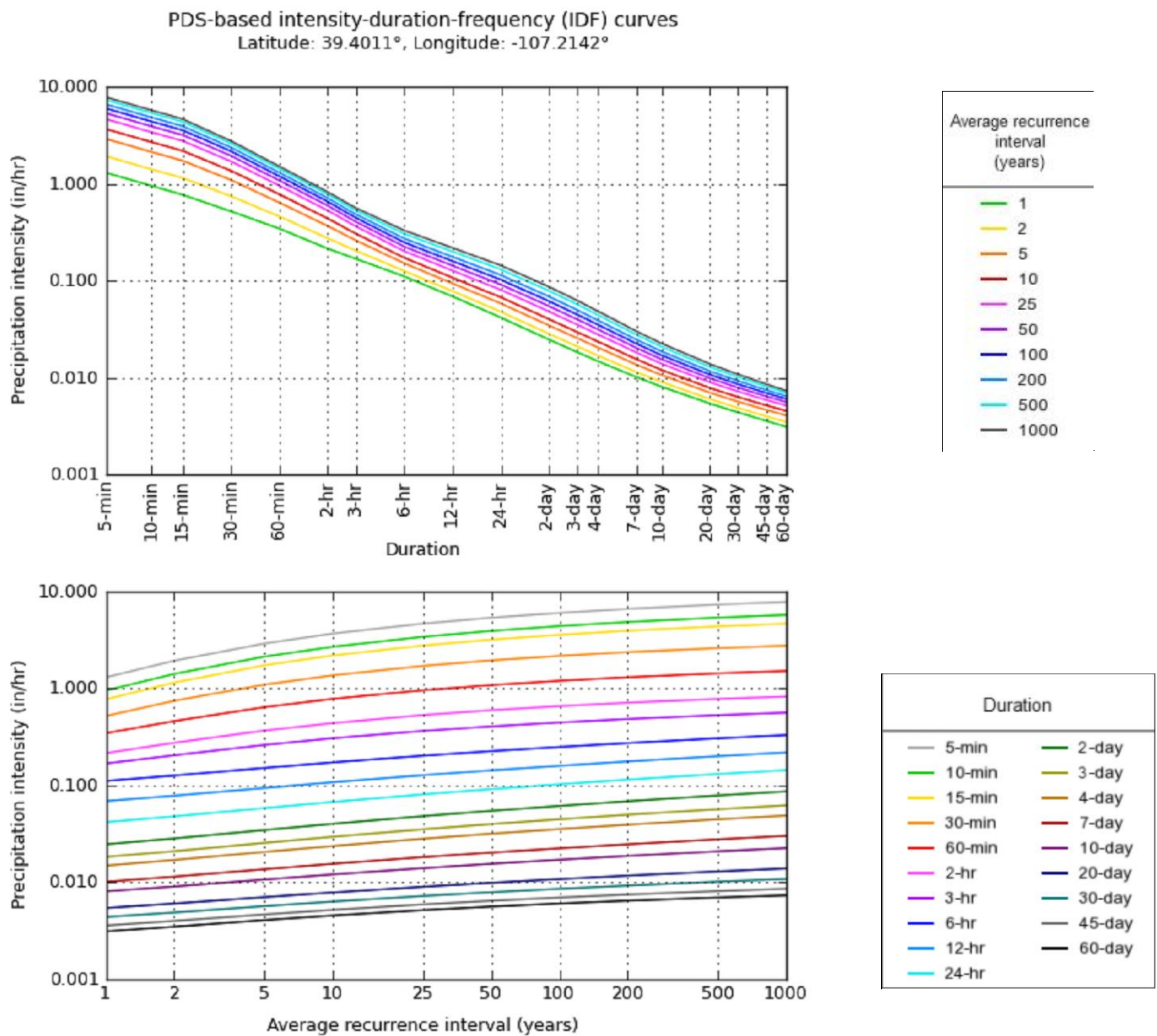
¹ Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS).

Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values.

Please refer to NOAA Atlas 14 document for more information.

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PF graphical



NOAA Atlas 14, Volume 8, Version 2

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Maps & aeriels

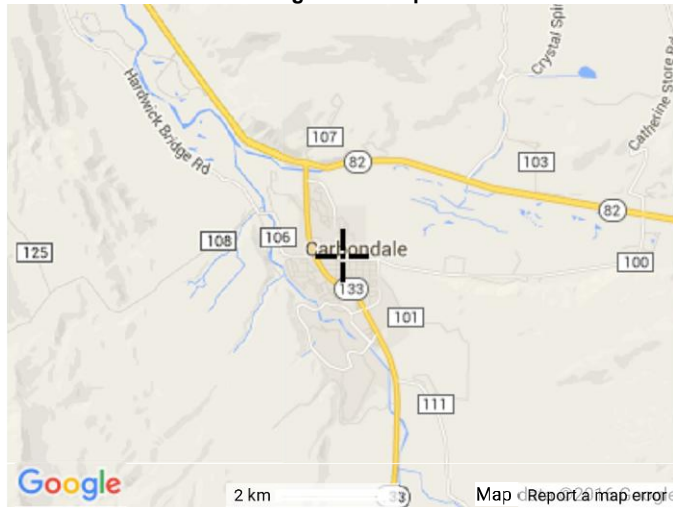
Small scale terrain



Large scale terrain



Large scale map



Large scale aerial



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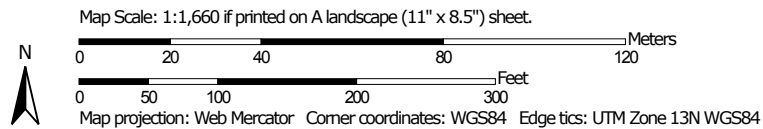
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Silver Spring, MD 20910
Questions?: HDSC.Questions@noaa.gov

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Hydrologic Soil Group—Aspen-Gypsum Area, Colorado, Parts of Eagle, Garfield, and Pitkin Counties (17135-NRCS SOILS)



Soil Map may not be valid at this scale.




**Natural Resources
Conservation Service**

Web Soil Survey
National Cooperative Soil Survey

7/19/2018
Page 1 of 4

MAP LEGEND

Area of Interest (AOI)









 Area of Interest (AOI)

Soils

Soil Rating Polygons





 A
 A/D
 B
 B/D
 C
 C/D
 D
 Not rated or not available

Soil Rating Lines

 A
 A/D
 B
 B/D
 C
 C/D
 D
 Not rated or not available

Soil Rating Points






 A
 A/D
 B
 B/D

 C
 C/D
 D
 Not rated or not available

Water Features

 Streams and Canals

Transportation

 Rails
 Interstate Highways
 US Routes
 Major Roads
 Local Roads

Background

 Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
 Web Soil Survey URL:
 Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Aspen-Gypsum Area, Colorado, Parts of Eagle, Garfield, and Pitkin Counties
 Survey Area Data: Version 8, Oct 10, 2017

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jul 14, 2010—Mar 2, 2017

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
13	Atencio-Azeltine complex, 3 to 6 percent slopes	B	9.7	100.0%
Totals for Area of Interest			9.7	100.0%

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

APPENDIX B

Storm Sewer Capacity Calculations

Culvert Report

Hydraflow Express Extension for Autodesk® AutoCAD® Civil 3D® by Autodesk, Inc.

Wednesday, Jun 21 2017

6 INCH STORM SEWER PIPE @ 2% FLOW

Invert Elev Dn (ft) = 100.00
Pipe Length (ft) = 50.00
Slope (%) = 2.00
Invert Elev Up (ft) = 101.00
Rise (in) = 6.0
Shape = Circular
Span (in) = 6.0
No. Barrels = 1
n-Value = 0.011
Culvert Type = Circular Culvert
Culvert Entrance = Rough tapered inlet throat
Coeff. K,M,c,Y,k = 0.519, 0.64, 0.021, 0.9, 0.5

Embankment

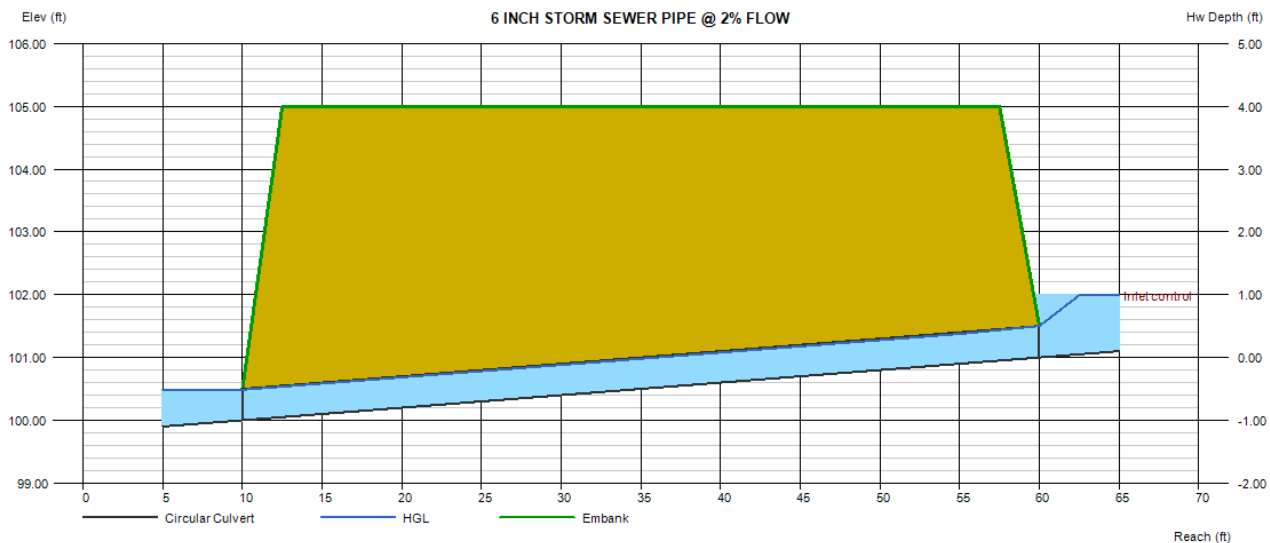
Top Elevation (ft) = 105.00
Top Width (ft) = 45.00
Crest Width (ft) = 10.00

Calculations

Qmin (cfs) = 0.00
Qmax (cfs) = 1.10
Tailwater Elev (ft) = (dc+D)/2

Highlighted

Qtotal (cfs) = 1.00
Qpipe (cfs) = 1.00
Qovertop (cfs) = 0.00
Veloc Dn (ft/s) = 5.13
Veloc Up (ft/s) = 5.20
HGL Dn (ft) = 100.49
HGL Up (ft) = 101.47
Hw Elev (ft) = 101.99
Hw/D (ft) = 1.98
Flow Regime = Inlet Control



Channel Report

6 IN PIPE 2% SLOPE - FLOW

Circular

Diameter (ft) = 0.50

Invert Elev (ft) = 100.00

Slope (%) = 2.00

N-Value = 0.011

Calculations

Compute by: Q vs Depth

No. Increments = 10

Highlighted

Depth (ft) = 0.45

Q (cfs) = 0.999

Area (sqft) = 0.19

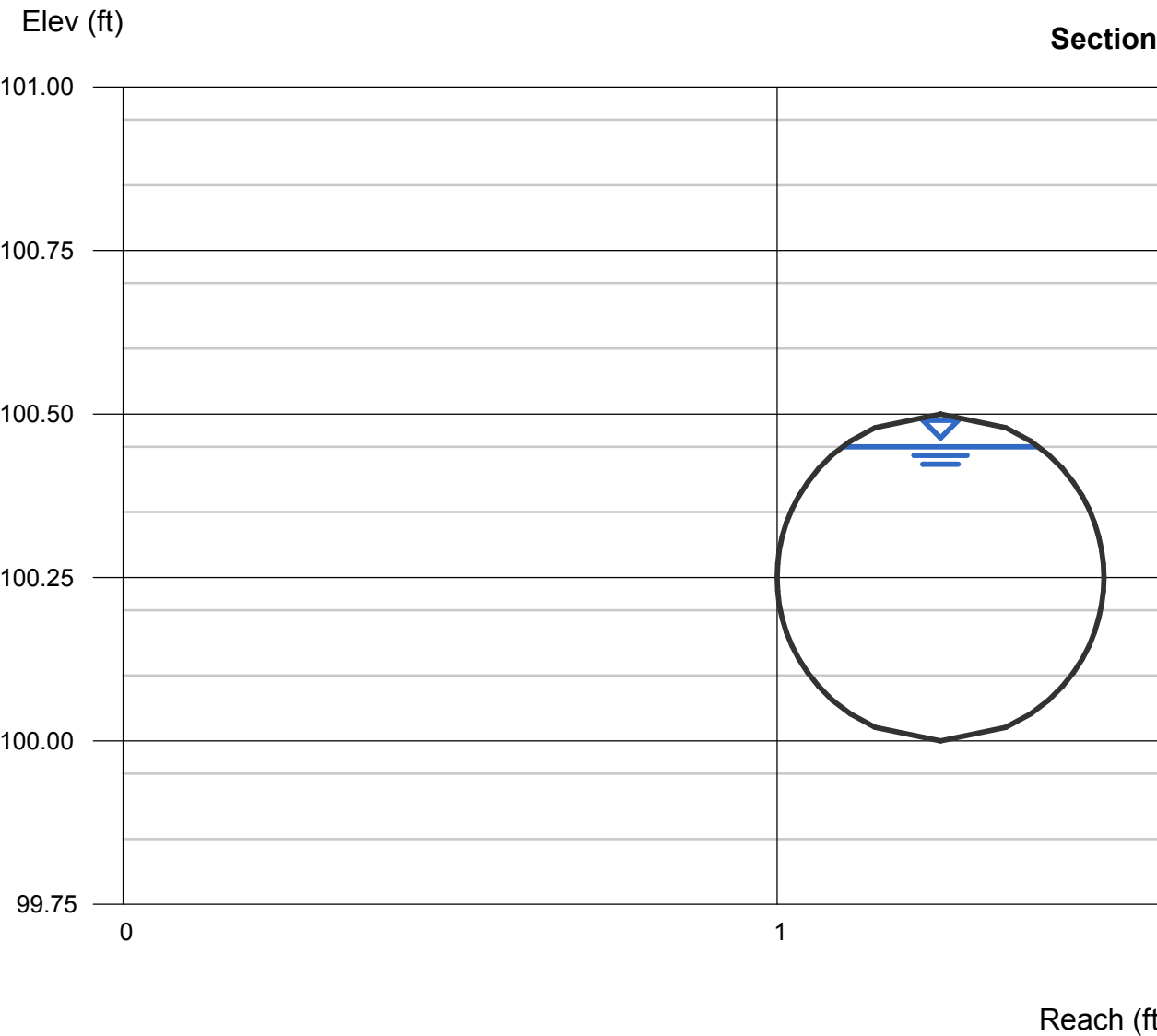
Velocity (ft/s) = 5.37

Wetted Perim (ft) = 1.25

Crit Depth, Yc (ft) = 0.48

Top Width (ft) = 0.30

EGL (ft) = 0.90



Culvert Report

Hydraflow Express Extension for Autodesk® AutoCAD® Civil 3D® by Autodesk, Inc.

Wednesday, Jun 21 2017

8 INCH STORM SEWER PIPE @ 2% FLOW

Invert Elev Dn (ft)	=	100.00
Pipe Length (ft)	=	50.00
Slope (%)	=	2.00
Invert Elev Up (ft)	=	101.00
Rise (in)	=	8.0
Shape	=	Circular
Span (in)	=	8.0
No. Barrels	=	1
n-Value	=	0.011
Culvert Type	=	Circular Culvert
Culvert Entrance	=	Rough tapered inlet throat
Coeff. K,M,c,Y,k	=	0.519, 0.64, 0.021, 0.9, 0.5

Embankment

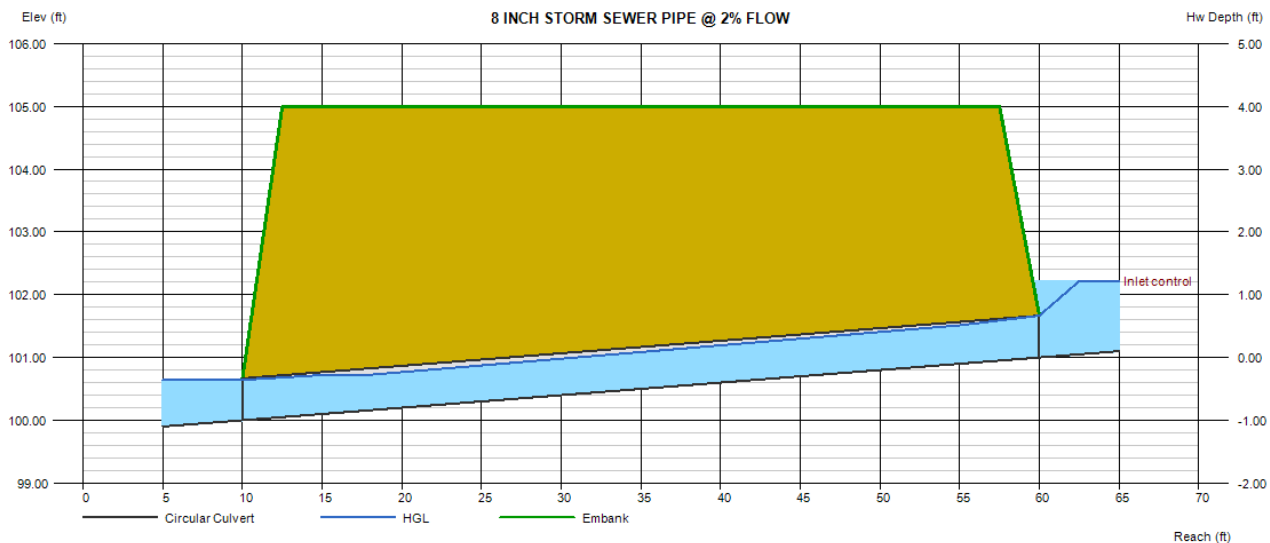
Top Elevation (ft)	=	105.00
Top Width (ft)	=	45.00
Crest Width (ft)	=	10.00

Calculations

Qmin (cfs)	=	0.00
Qmax (cfs)	=	2.00
Tailwater Elev (ft)	=	(dc+D)/2

Highlighted

Qtotal (cfs)	=	1.90
Qpipe (cfs)	=	1.90
Qovertop (cfs)	=	0.00
Veloc Dn (ft/s)	=	5.51
Veloc Up (ft/s)	=	5.62
HGL Dn (ft)	=	100.64
HGL Up (ft)	=	101.62
Hw Elev (ft)	=	102.22
Hw/D (ft)	=	1.82
Flow Regime	=	Inlet Control



Channel Report

8 IN PIPE 2% SLOPE - FLOW

Circular

Diameter (ft) = 0.67

Invert Elev (ft) = 100.00

Slope (%) = 2.00

N-Value = 0.011

Calculations

Compute by: Q vs Depth

No. Increments = 10

Highlighted

Depth (ft) = 0.60

Q (cfs) = 2.181

Area (sqft) = 0.33

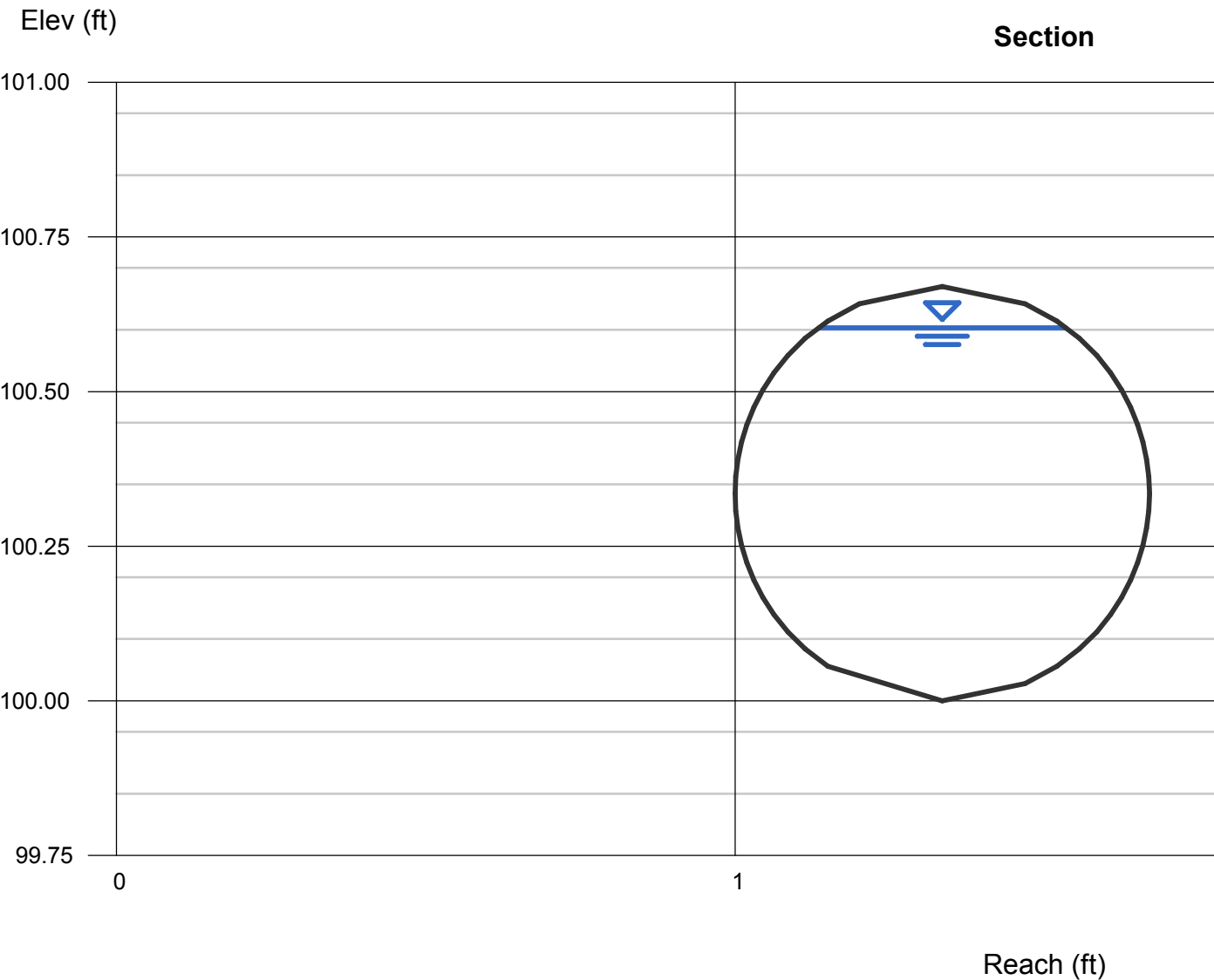
Velocity (ft/s) = 6.52

Wetted Perim (ft) = 1.68

Crit Depth, Yc (ft) = 0.64

Top Width (ft) = 0.40

EGL (ft) = 1.26



Culvert Report

Hydraflow Express Extension for Autodesk® AutoCAD® Civil 3D® by Autodesk, Inc.

Wednesday, Jun 21 2017

12 INCH STORM SEWER PIPE @ 2% FLOW

Invert Elev Dn (ft)	=	100.00
Pipe Length (ft)	=	50.00
Slope (%)	=	2.00
Invert Elev Up (ft)	=	101.00
Rise (in)	=	12.0
Shape	=	Circular
Span (in)	=	12.0
No. Barrels	=	1
n-Value	=	0.011
Culvert Type	=	Circular Culvert
Culvert Entrance	=	Rough tapered inlet throat
Coeff. K,M,c,Y,k	=	0.519, 0.64, 0.021, 0.9, 0.5

Embankment

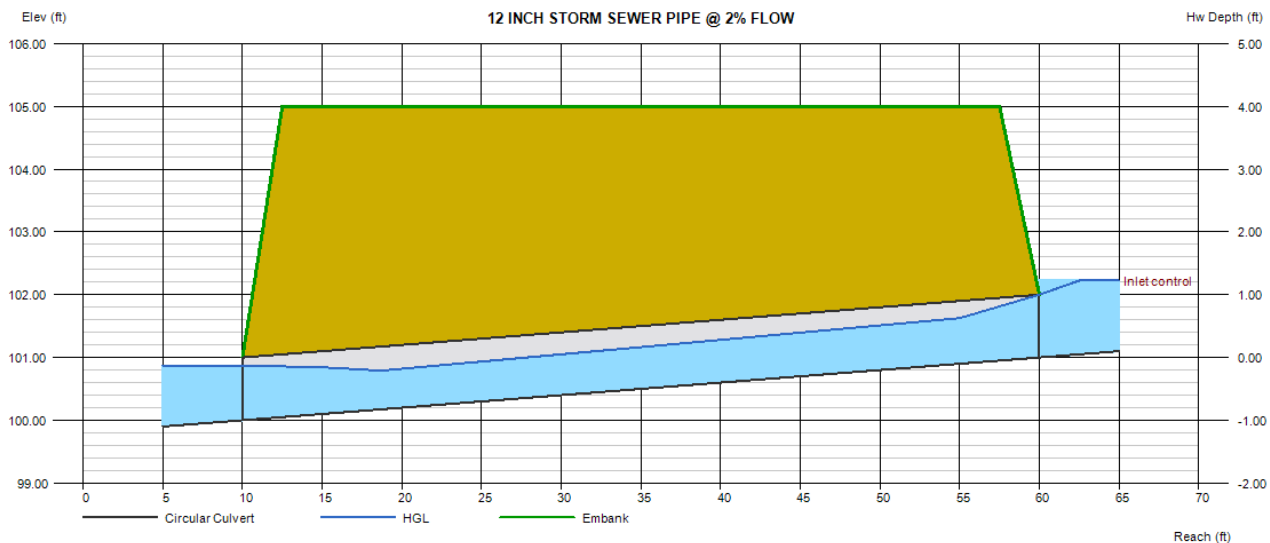
Top Elevation (ft)	=	105.00
Top Width (ft)	=	45.00
Crest Width (ft)	=	10.00

Calculations

Qmin (cfs)	=	0.00
Qmax (cfs)	=	3.00
Tailwater Elev (ft)	=	(dc+D)/2

Highlighted

Qtotal (cfs)	=	3.00
Qpipe (cfs)	=	3.00
Qovertop (cfs)	=	0.00
Veloc Dn (ft/s)	=	4.13
Veloc Up (ft/s)	=	4.80
HGL Dn (ft)	=	100.87
HGL Up (ft)	=	101.74
Hw Elev (ft)	=	102.22
Hw/D (ft)	=	1.22
Flow Regime	=	Inlet Control



Channel Report

12 IN PIPE 2% SLOPE - FLOW

Circular

Diameter (ft) = 1.00

Invert Elev (ft) = 100.00

Slope (%) = 2.00

N-Value = 0.011

Calculations

Compute by: Q vs Depth

No. Increments = 10

Highlighted

Depth (ft) = 0.90

Q (cfs) = 6.346

Area (sqft) = 0.74

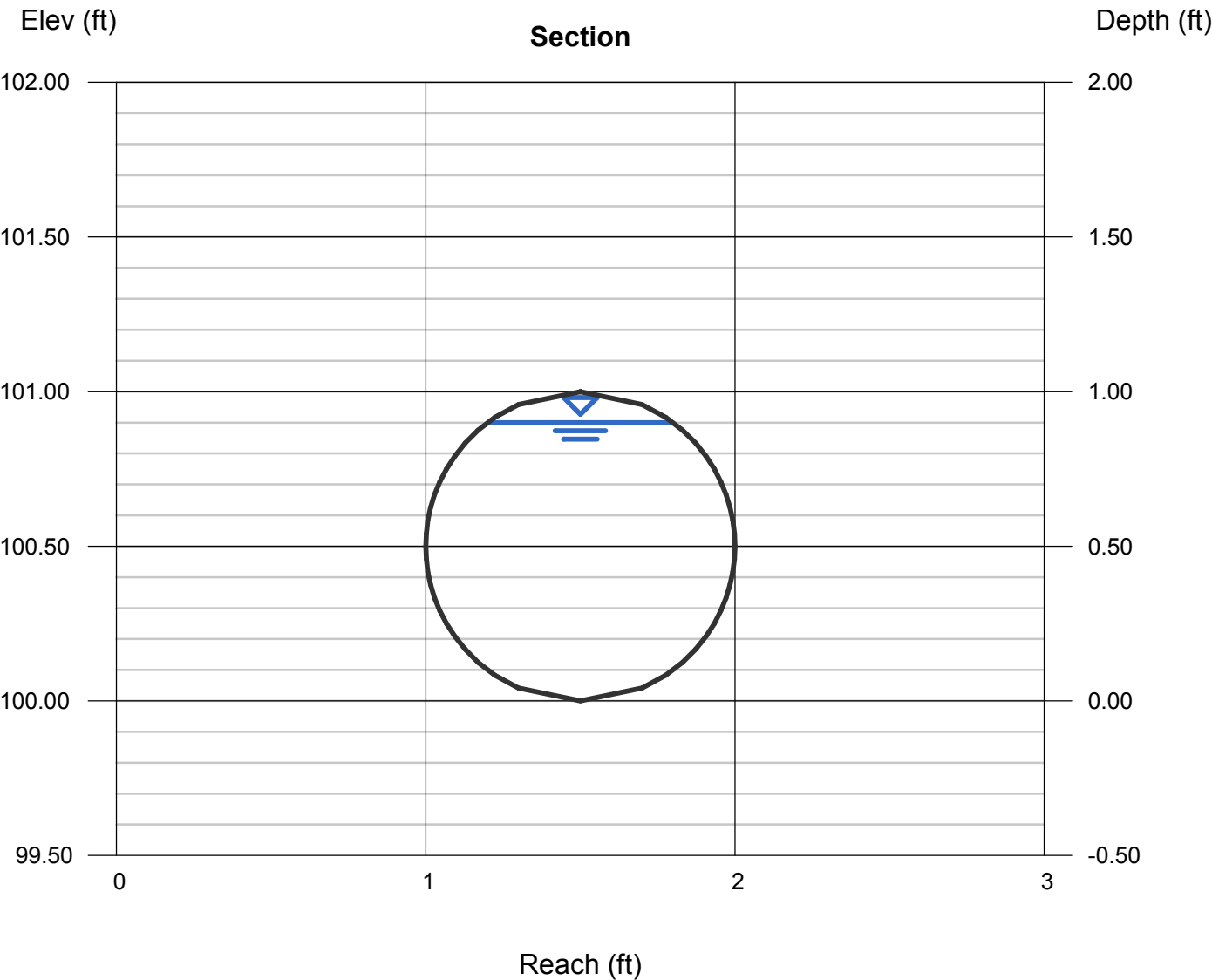
Velocity (ft/s) = 8.52

Wetted Perim (ft) = 2.50

Crit Depth, Yc (ft) = 0.97

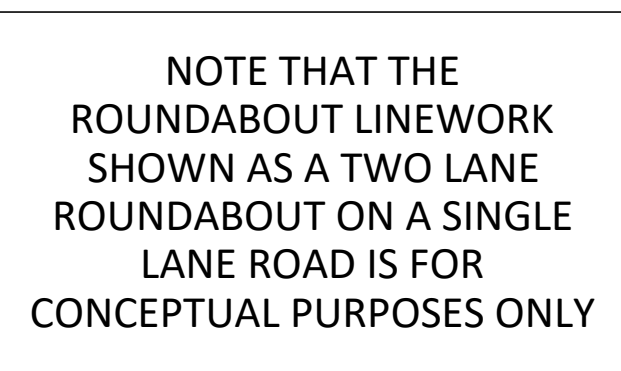
Top Width (ft) = 0.60

EGL (ft) = 2.03



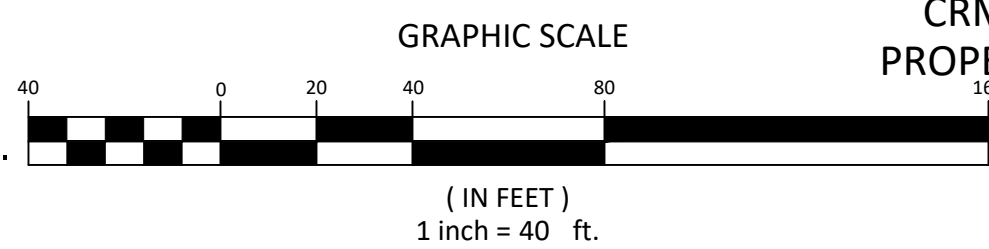
MAJOR SITE PLAN REVIEW APPLICATION

DATE	REVISION
05/12/20	A REVISED EASEMENT & DRAINAGE INFRASTRUCTURE, DOOR MOVED
TITLE	GRADING, DRAINAGE & SNOW STORAGE PLAN
EXHIBIT	L



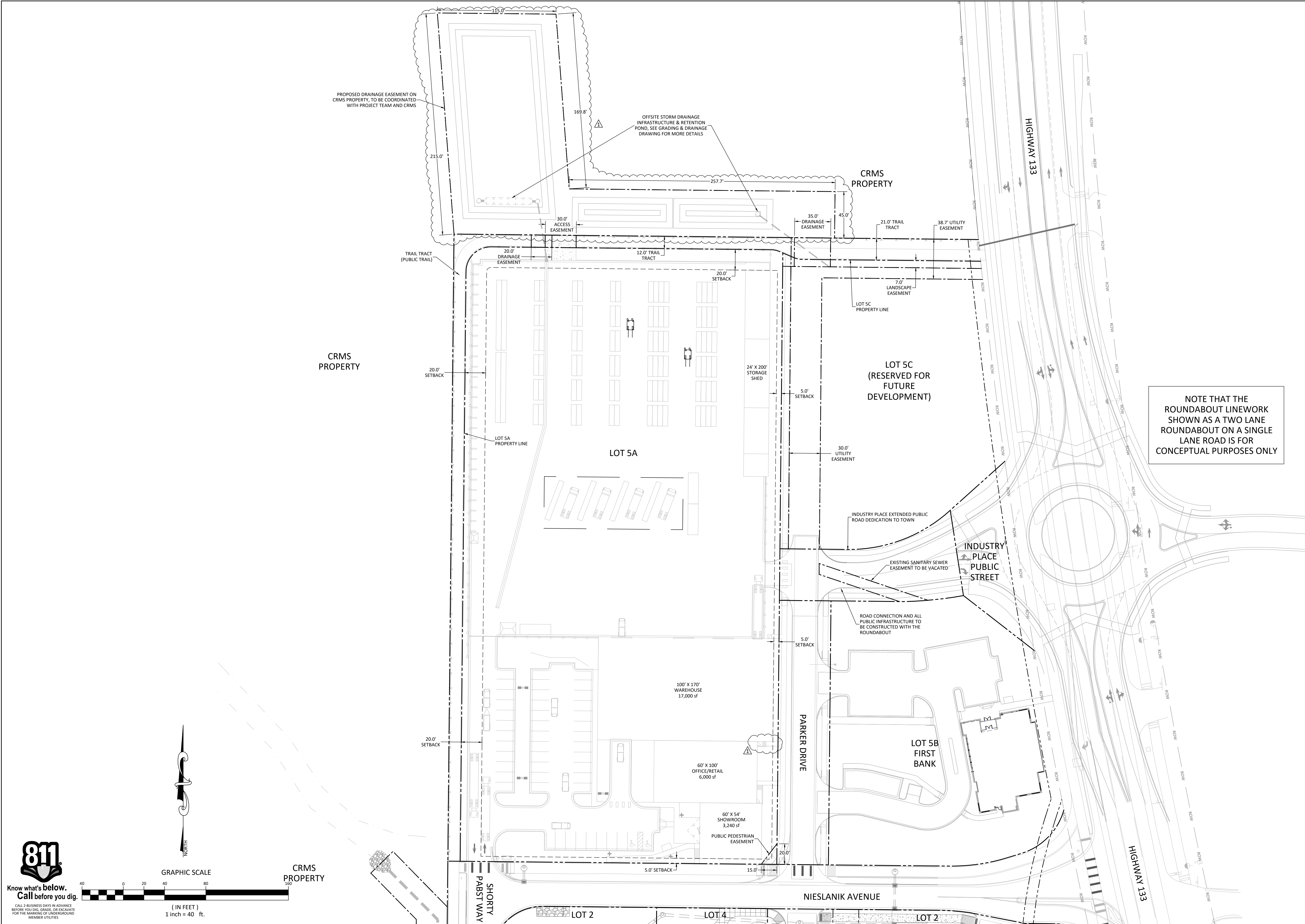
**Know what's below.
Call before you dig**

CALL 2-BUSINESS DAYS IN ADVANCE
BEFORE YOU DIG, GRADE, OR EXCAVATE
FOR THE MARKING OF UNDERGROUND
MEMBER UTILITIES



LOT 5A, 5C CARBONDALE MARKETPLACE SUBDIVISION
CARBONDALE, COLORADO

MAJOR SITE PLAN REVIEW APPLICATION

[illegible]

CRMS DRAINAGE EASEMENT

A PARCEL OF LAND SITUATED IN OF SECTION 33, TOWNSHIP 7 SOUTH, RANGE 88 WEST OF THE 6TH P.M.,
TOWN OF CARBONDALE, COUNTY OF GARFIELD, STATE OF COLORADO.

SHEET 1 OF 2

AN EASEMENT SITUATED IN COLORADO ROCKY MOUNTAIN SCHOOL PROPERTY CRMS EXEMPTION
RECORDED AS RECEPTION NO. 735289 AND AS WAS AMENDED BY THE LOT LINE ADJUSTMENT OF CRYSTAL
RIVER MARKETPLACE, LLC/CRMS PROPERTIES RECORDED AS RECEPTION NO. 791487 BOTH OF THE
GARFIELD COUNTY RECORDS; SAID EASEMENT LOCATED IN SECTION 33, TOWNSHIP 7 SOUTH, RANGE 88
WEST OF THE SIXTH PRINCIPAL MERIDIAN, CARBONDALE, COLORADO, SAID EASEMENT BEING MORE
PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT A COMMON POINT OF SAID CRMS PROPERTY, COLORADO HIGHWAY 133 AND
CARBONDALE MARKETPLACE SUBDIVISION RECORDED AS RECEPTION NO. 907183, A FOUND REBAR & 1 1/4"
ORANGE PLASTIC CAP L.S. #28643, THENCE ALONG THE COMMON BOUNDARY OF SAID CRMS PROPERTY AND
SAID CARBONDALE MARKETPLACE SUBDIVISION N89°24'58"W A DISTANCE OF 139.37 FEET; TO THE POINT OF
BEGINNING;

THENCE ALONG SAID COMMON BOUNDARY N89°24'58"W A DISTANCE OF 368.81 FEET; THENCE LEAVING
SAID BOUNDARY THE FOLLOWING FIVE (5) COURSES:

- 1) N04°18'58"W A DISTANCE OF 215.00 FEET;
- 2) S89°24'58"E A DISTANCE OF 115.00 FEET;
- 3) S04°18'58"E A DISTANCE OF 169.83 FEET;
- 4) S89°24'58"E A DISTANCE OF 257.67 FEET;
- 5) S00°35'02"W A DISTANCE OF 45.00 FEET; TO THE POINT OF BEGINNING.

CONTAINING 36,143 SQUARE FEET OR 0.830 ACRES, MORE OR LESS.

NOTICE: ACCORDING TO COLORADO LAW YOU MUST
COMMENCE ANY LEGAL ACTION BASED UPON ANY
DEFECT IN THIS SURVEY WITHIN THREE YEARS AFTER
YOU FIRST DISCOVER SUCH DEFECT. IN NO EVENT MAY
ANY ACTION BASED UPON ANY DEFECT IN THIS SURVEY
BE COMMENCED MORE THAN TEN YEARS FROM THE
DATE OF CERTIFICATION SHOWN HEREON.

SOPRIS ENGINEERING - LLC

CIVIL CONSULTANTS
502 MAIN STREET, SUITE A3
CARBONDALE, COLORADO 81623
(970) 704-0311 SOPRISENG@SOPRISENG.COM

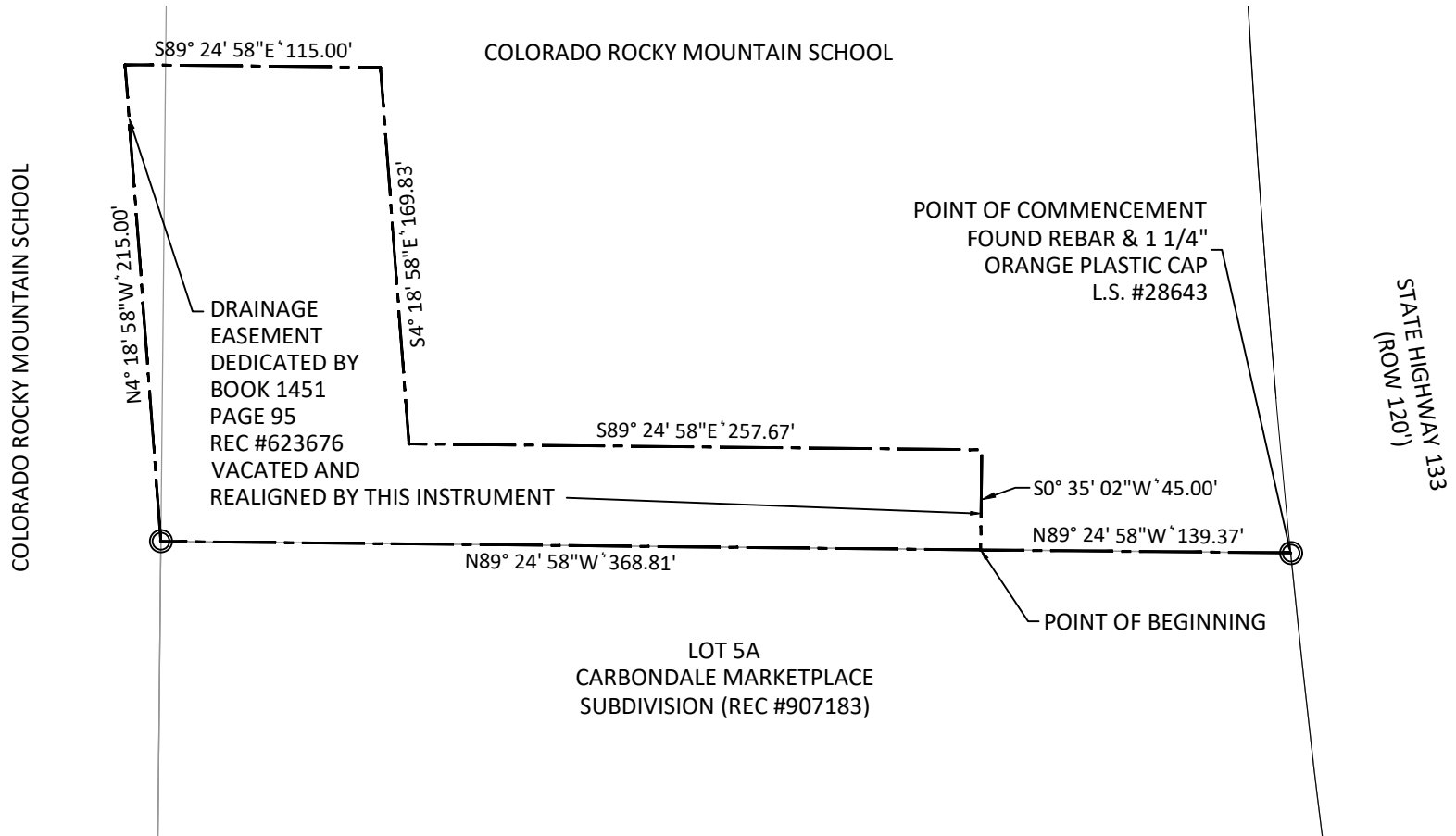
sb 19206.03 5/14/2020
19206_03-EXHIB_CRMS_DRAINAGE_ESMT.dwg

EXHIBIT

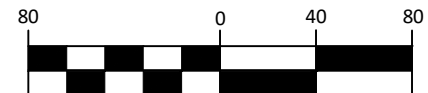
CRMS DRAINAGE EASEMENT

A PARCEL OF LAND SITUATED IN OF SECTION 33, TOWNSHIP 7 SOUTH, RANGE 88 WEST OF THE 6TH P.M.,
TOWN OF CARBONDALE, COUNTY OF GARFIELD, STATE OF COLORADO.

SHEET 2 OF 2



GRAPHIC SCALE



(IN FEET)
1 inch = 80 ft.

NOTICE: ACCORDING TO COLORADO LAW YOU MUST COMMENCE ANY LEGAL ACTION BASED UPON ANY DEFECT IN THIS SURVEY WITHIN THREE YEARS AFTER YOU FIRST DISCOVER SUCH DEFECT. IN NO EVENT MAY ANY ACTION BASED UPON ANY DEFECT IN THIS SURVEY BE COMMENCED MORE THAN TEN YEARS FROM THE DATE OF CERTIFICATION SHOWN HEREON.

SOPRIS ENGINEERING - LLC
CIVIL CONSULTANTS
502 MAIN STREET, SUITE A3
CARBONDALE, COLORADO 81623
(970) 704-0311 SOPRISENG@SOPRISENG.COM

FIRST AMENDED PLAT OF:

LOT 5A, FIRST AMENDED PLAT OF LOT 5, CARBONDALE MARKETPLACE SUBDIVISION

A PARCEL OF LAND SITUATED IN SECTION 33, TOWNSHIP 7 SOUTH, RANGE 88 WEST OF THE 6th P.M.
TOWN OF CARBONDALE, COUNTY OF GARFIELD, STATE OF COLORADO
SHEET 1 OF 2

CERTIFICATE OF DEDICATION AND OWNERSHIP

KNOW ALL MEN BY THESE PRESENTS:

THAT CRYSTAL RIVER MARKETPLACE LLC, IS THE SOLE OWNER IN FEE SIMPLE OF ALL THAT REAL PROPERTY SITUATED IN THE TOWN OF CARBONDALE, COUNTY OF GARFIELD, STATE OF COLORADO, DESCRIBED ON SHEET 1 OF THIS FIRST AMENDED PLAT

THE AFORESAID OWNERS HAS BY THESE PRESENTS LAID OUT AND PLATTED ALL OF THE DESCRIBED REAL PROPERTY INTO LOTS, TRACTS AND RIGHTS-OF-WAY AS SHOWN HEREON AND HEREBY DESIGNATES THE SAME AS FIRST AMENDED PLAT OF LOT 5A, CARBONDALE MARKETPLACE SUBDIVISION IN THE TOWN OF CARBONDALE, COUNTY OF GARFIELD, STATE OF COLORADO, AND DOES HEREBY MAKE THE FOLLOWING DEDICATIONS AND RESERVATIONS:

ALL PORTIONS OF THE REAL PROPERTY IDENTIFIED AND DEPICTED ON THE WITHIN PLAT AS PUBLIC STREET RIGHTS-OF-WAY ARE DEDICATED, IN FEE, TO THE TOWN OF CARBONDALE FOR PUBLIC STREETS FOR THE PUBLIC USE;

ALL PORTIONS OF THE REAL PROPERTY IDENTIFIED AND DEPICTED ON THE WITHIN PLAT AS A TRAIL TRACT ARE DEDICATED, IN FEE, TO THE TOWN OF CARBONDALE FOR THE PUBLIC USE FOR NON-VEHICULAR TRAIL PURPOSES;

ALL PORTIONS OF THE REAL PROPERTY IDENTIFIED AND DEPICTED ON THE WITHIN PLAT AS PUBLIC PEDESTRIAN EASEMENTS ARE HEREBY RESERVED, DEDICATED TO AND SET APART AS PERPETUAL, NON-EXCLUSIVE PEDESTRIAN EASEMENTS FOR THE USE AND BENEFIT OF THE TOWN OF CARBONDALE FOR THE PUBLIC USE, FOR THE PURPOSE OF INSTALLATION, MAINTENANCE, REPAIR AND REPLACEMENT OF PEDESTRIAN SIDEWALKS;

ALL PORTIONS OF THE REAL PROPERTY IDENTIFIED AND DEPICTED ON THE WITHIN PLAT AS UTILITY EASEMENTS ARE HEREBY RESERVED, DEDICATED TO AND SET APART AS PERPETUAL, NON-EXCLUSIVE UTILITY EASEMENTS FOR THE USE AND BENEFIT OF THE TOWN OF CARBONDALE FOR THE PUBLIC USE, FOR THE PURPOSE OF INSTALLATION, OPERATION, MAINTENANCE, REPAIR AND REPLACEMENT OF UNDERGROUND UTILITY LINES AND THEIR APPURTENANT SURFACE FACILITIES, TOGETHER WITH PERPETUAL RIGHT OF INGRESS AND EGRESS THERETO FOR THE AFORESAID PURPOSES;

ALL PORTIONS OF THE REAL PROPERTY IDENTIFIED AND DEPICTED ON THE WITHIN PLAT AS LANDSCAPE EASEMENTS ARE HEREBY RESERVED, DEDICATED TO AND SET APART AS PERPETUAL, NON-EXCLUSIVE LANDSCAPE EASEMENTS FOR THE USE AND BENEFIT OF THE OWNERS, HEIRS AND ASSIGNEES OF LOT 5C HEREOF, FOR THE PURPOSE OF INSTALLATION, OPERATION, MAINTENANCE, REPAIR AND REPLACEMENT OF LANDSCAPING AND THEIR APPURTENANT SURFACE AND UNDERGROUND IRRIGATION FACILITIES, TOGETHER WITH PERPETUAL RIGHT OF INGRESS AND EGRESS THERETO FOR THE AFORESAID PURPOSES;

ALL PORTIONS OF THE REAL PROPERTY IDENTIFIED AND DEPICTED ON THE WITHIN PLAT AS DRAINAGE EASEMENTS ARE HEREBY RESERVED, DEDICATED TO AND SET APART AS PERPETUAL, NON-EXCLUSIVE DRAINAGE EASEMENTS FOR THE PRIVATE USE AND BENEFIT OF THE ADJOINING LOT TO THE SOUTH (LOT 5A AMENDED FOR THE WEST EASEMENT AND LOT 5C FOR THE EAST EASEMENT), FOR THE PURPOSE OF INSTALLATION, OPERATION, MAINTENANCE, REPAIR AND REPLACEMENT OF UNDERGROUND DRAINAGE LINES AND THEIR APPURTENANT SURFACE FACILITIES, TOGETHER WITH PERPETUAL RIGHT OF INGRESS AND EGRESS THERETO FOR THE AFORESAID PURPOSES;

ALL PORTIONS OF THE REAL PROPERTY IDENTIFIED AND DEPICTED ON THE WITHIN PLAT AS PRIVATE ACCESS EASEMENTS ARE HEREBY RESERVED, DEDICATED TO AND SET APART AS PERPETUAL, NON-EXCLUSIVE ACCESS EASEMENTS FOR THE PRIVATE USE AND BENEFIT OF THE ADJOINING LOT TO THE SOUTH (LOT 5A AMENDED FOR THE WEST EASEMENT AND LOT 5C FOR THE EAST EASEMENT), FOR THE PURPOSE OF INGRESS AND EGRESS ACROSS THE TRAIL TRACT TO THE DRAINAGE EASEMENT LOCATED ON THE ADJOINING LANDS TO THE NORTH, FOR SNOW STORAGE PURPOSES.

LOT 5A OWNER: CRYSTAL RIVER MARKETPLACE LLC, A COLORADO LIMITED LIABILITY COMPANY

BY: _____
BRISTON PETERSON

TITLE: MANAGER

IN WITNESS WHEREOF SAID OWNER HAS CAUSED HIS NAME TO BE HEREUNTO SUBSCRIBED THIS ____ DAY OF _____, A.D., 2020.

STATE OF)
) SS
COUNTY OF)

THE FOREGOING DEDICATION WAS ACKNOWLEDGED BEFORE ME THIS ____ DAY OF _____, A.D., 2020, BY BRISTON PETERSON, AS MANAGER OF CRYSTAL RIVER MARKETPLACE LLC, A COLORADO LIMITED LIABILITY COMPANY.

MY COMMISSION EXPIRES: _____.

WITNESS MY HAND AND SEAL

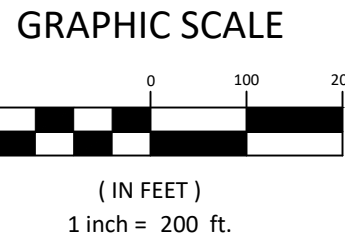
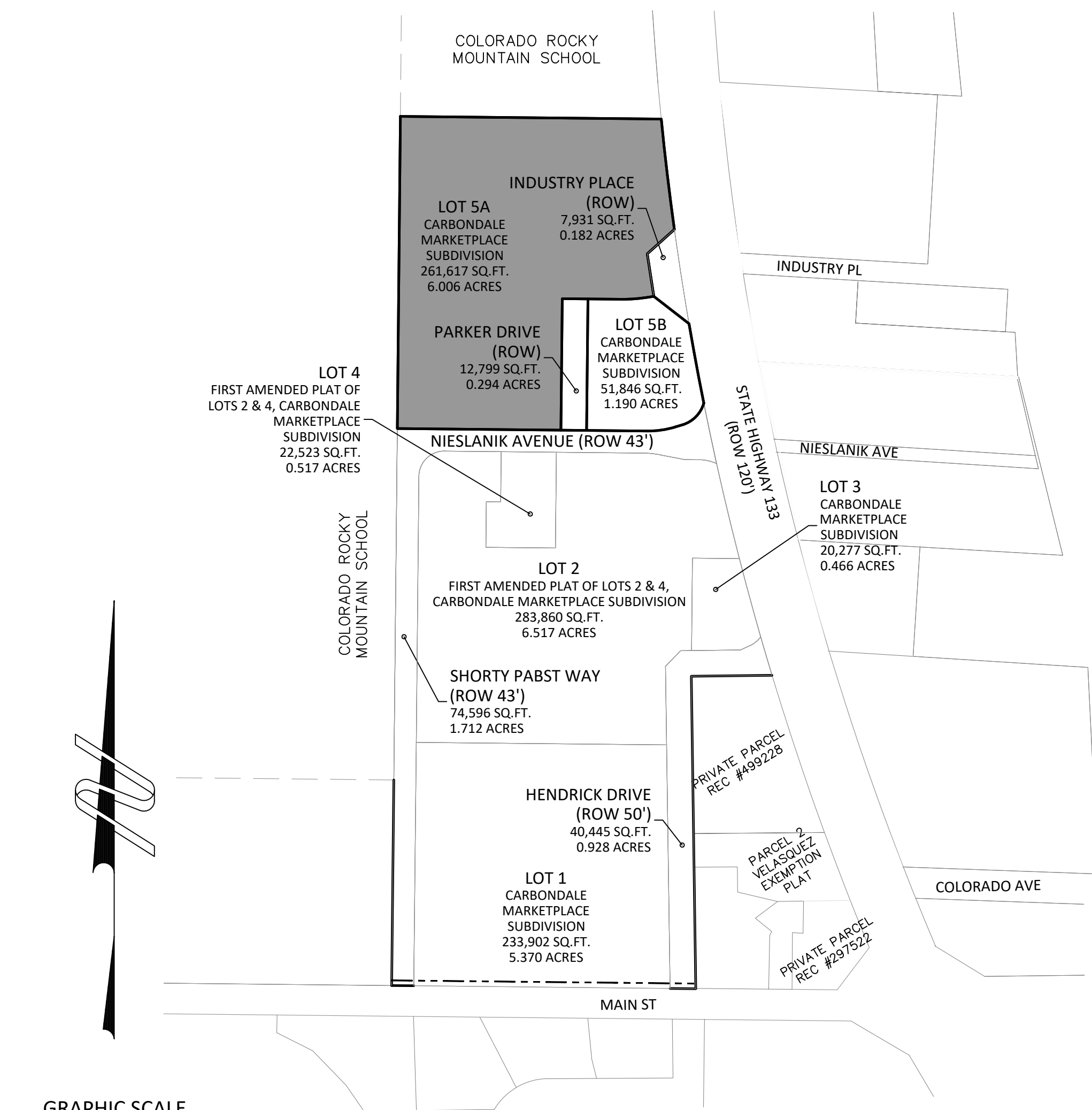
NOTARY PUBLIC _____

PURPOSE STATEMENT

THE PURPOSE OF THIS FIRST AMENDED PLAT IS TO DIVIDE LOT 5A INTO LOTS 5A AMENDED AND 5C.

SHEET INDEX

1 - CERTIFICATIONS & DEDICATIONS
2 - PROPOSED LOT LAYOUT AND EASEMENTS



SUBJECT PROPERTY DESCRIPTION

A PARCEL OF LAND BEING DESCRIBED AS LOT 5A ACCORDING TO THE FIRST AMENDED PLAT OF LOT 5, CARBONDALE MARKETPLACE SUBDIVISION RECORDED MAY 25, 2018 AT RECEPTION NO. 907183.

TOWN OF CARBONDALE
COUNTY OF GARFIELD, STATE OF COLORADO

PLAT NOTES:

- 1) THE TOWN OF CARBONDALE ORDINANCE NO. 21, SERIES OF 1997 RECORDED MARCH 13, 1998 AT RECEPTION NO. 521822, IN THE OFFICE OF THE CLERK AND RECORDER OF GARFIELD COUNTY, COLORADO SHALL REMAIN IN FULL FORCE AND EFFECT EXCEPT TO THE EXTENT MODIFIED OR CONDITIONED BY THE TERMS OF ORDINANCE NO. 5 SERIES OF 2016 AND THAT CERTAIN SUBDIVISION IMPROVEMENTS AGREEMENT RECORDED FEBRUARY 28, 2018 AT RECEPTION NO. 903695, BY THE TERMS OF ORDINANCE NO. 7 SERIES OF 2017, ORDINANCE NO. 17 SERIES OF 2017 AND THAT CERTAIN SUBDIVISION IMPROVEMENTS AGREEMENT RECORDED MAY 25, 2018 AT RECEPTION NO. 907187, ALL IN THE OFFICE OF THE CLERK AND RECORDER OF GARFIELD COUNTY COLORADO, AND THE RECIPROCAL EASEMENT AGREEMENT RECORDED FEBRUARY 28, 2018 AT RECEPTION NO. 903701.
- 2) THIS PLAT SUBDIVIDES THE LOT BOUNDARY OF LOT 5A, FIRST AMENDED PLAT OF 5A, CARBONDALE MARKETPLACE SUBDIVISION, ACCORDING TO THE PLAT THEREOF RECORDED MAY 25, 2018 AS RECEPTION NO. 907183 (THE "SUBDIVISION PLAT"). EXCEPT TO THE EXTENT THE LOT BOUNDARY OF SAID LOT 5A IS SUBDIVIDED INTO LOTS 5A AMENDED AND 5C BY THIS PLAT, THE SUBDIVISION PLAT, INCLUDING ALL PLAT NOTES REMAINS IN EFFECT.
- 3) PLAT NOTES SPECIFIC TO IRRIGATION
 - a) ALL IRRIGATION SHALL BE SERVED BY NON-POTABLE IRRIGATION SYSTEMS SUPPLIED BY THE ROCKFORD DITCH.
 - b) NO TREATED WATER FROM THE TOWN'S MUNICIPAL SYSTEM SHALL BE USED FOR OUTDOOR IRRIGATION.

SURVEY NOTES

DATE OF SURVEY: OCTOBER 2017 - MARCH 2018, FEBRUARY 2020.

DATE OF PREPARATION: FEBRUARY - MARCH, 2020.

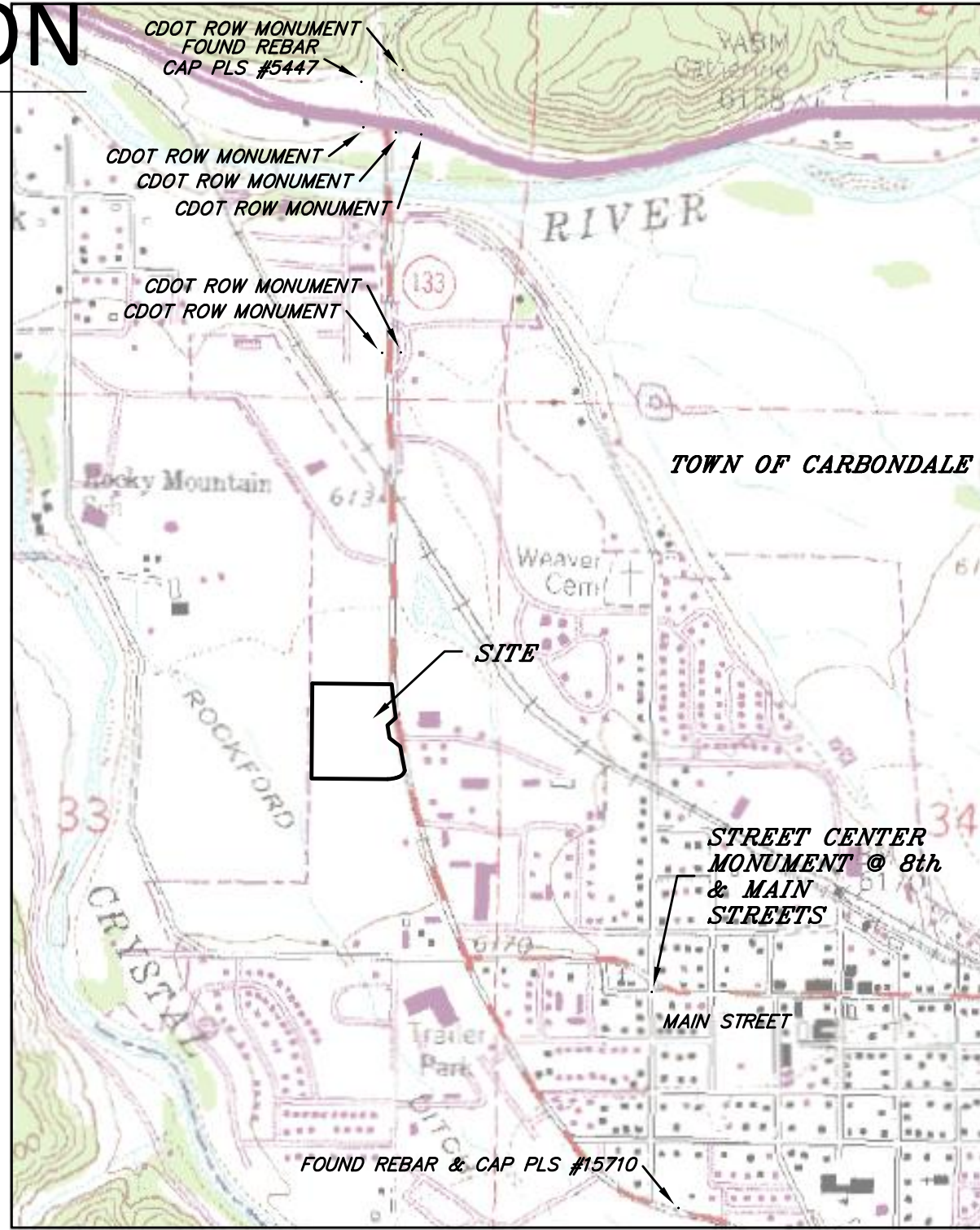
BASIS OF SURVEY: THE CRYSTAL RIVER MARKET PLACE/CRMS LOT LINE ADJUSTMENT PLAT RECORDED AT RECEPTION NO. 791487, THE MAP OF TERRITORY TO BE ANNEXED TO THE TOWN OF CARBONDALE, PREPARED BY LINES IN SPACE DATED MAY 16, 1979, THE COLORADO ROCKY MOUNTAIN SCHOOL SUBDIVISION EXEMPTION PLAT RECORDED MARCH 13, 1998 AT RECEPTION NO. 521824, THE SUBDIVISION EXEMPTION PLAT OF THE RESUBDIVISION OF THE VELASQUEZ PROPERTY RECORDED MARCH 28, 1988 AT RECEPTION NO. 390757, THE COLORADO DEPARTMENT OF HIGHWAYS RIGHT-OF-WAY MAPS FOR STATE HIGHWAY NO. 133 FEDERAL AID PROJECT NO. S 0163 (1), THE PLAT OF CARBONDALE MARKETPLACE SUBDIVISION RECORDED FEBRUARY 28, 2018 AT RECEPTION NO. 903693, THE FIRST AMENDED PLAT OF LOTS 2 & 4 CARBONDALE MARKETPLACE SUBDIVISION RECORDED FEBRUARY 28, 2017 AT RECEPTION NO. 903693, FIRST AMENDED PLAT OF LOT 5, CARBONDALE MARKETPLACE SUBDIVISION RECORDED MAY 25, 2018 AT RECEPTION NO. 907183, VARIOUS DOCUMENTS OF RECORD AND THE FOUND SURVEY MONUMENTS, AS SHOWN.

BASIS OF BEARING: A BEARING OF S 89°57'00" E BETWEEN THE TOWN OF CARBONDALE STREET MONUMENTS AT THE INTERSECTIONS OF EIGHTH & MAIN AND SECOND & MAIN, BOTH BEING FOUND NO. 4 REBARS IN PLACE, WHICH ESTABLISHED A PROJECT BEARING OF N.00°33'52"E, ALONG THE WEST BOUNDARY OF THE COLORADO ROCKY MOUNTAIN SCHOOL SUBDIVISION EXEMPTION PLAT BETWEEN THE FOUND REBAR AND CAP I.S. 14111 MONUMENTING THE SOUTHWEST CORNER AND THE FOUND #5 REBAR MONUMENTING THE NORTHWEST CORNER OF SAID PLAT.

THIS SURVEY DOES NOT CONSTITUTE A TITLE SEARCH BY SOPRIS ENGINEERING, LLC (SE) TO DETERMINE OWNERSHIP OR EASEMENTS OF RECORD. FOR ALL INFORMATION REGARDING EASEMENTS, RIGHTS OF WAY AND/OR TITLE OF RECORD, SE RELIED UPON THE ABOVE SAID PLATS DESCRIBED IN NOTE 4 AND THE TITLE COMMITMENT PREPARED BY TITLE COMPANY OF THE ROCKIES COMMITMENT NO. 0602319-C, EFFECTIVE DATE OF JANUARY 24, 2020.

SAID PLAT OF THE COLORADO ROCKY MOUNTAIN SCHOOL SUBDIVISION EXEMPTION PLAT AND THE 57.77 ACRE TOWN OF CARBONDALE ANNEXATION PARCEL DESCRIPTION HAVE BEEN ROTATED 00°00'51" CLOCKWISE TO CONFORM TO THE BASIS OF BEARING LISTED ABOVE.

THE STATE HIGHWAY NO. 133 PROJECT NO. S 0163(1) RIGHT-OF-WAY WAS ESTABLISHED BASED ON THE FOUND ROW MONUMENT AT STATION 31+78.1 RT AND 66+75.0 LT.



VICINITY MAP
SCALE 1"=1000'

BOARD OF TRUSTEES CERTIFICATE

THIS FIRST AMENDED PLAT APPROVED BY THE BOARD OF TRUSTEES OF THE TOWN OF CARBONDALE, GARFIELD COUNTY, STATE OF COLORADO, THIS ____ DAY OF _____, A.D., 2020, FOR FILING WITH THE CLERK AND RECORDER OF GARFIELD COUNTY, STATE OF COLORADO, AND FOR THE CONVEYANCE TO THE TOWN OF THE PUBLIC DEDICATIONS SHOWN HEREON, SUBJECT TO THE PROVISION THAT THE APPROVAL IN NO WAY OBLIGATES THE TOWN OF CARBONDALE FOR FINANCING OR CONSTRUCTING IMPROVEMENTS ON LAND, STREETS OR EASEMENTS DEDICATED TO THE PUBLIC EXCEPT AS SPECIFICALLY AGREED TO BY THE TOWN.

MAYOR, TOWN OF CARBONDALE

ATTEST:

PLANNING COMMISSION CERTIFICATE

THIS FIRST AMENDED PLAT APPROVED BY THE TOWN OF CARBONDALE PLANNING AND ZONING COMMISSION THIS ____ DAY OF _____, A.D., 2020.

CHAIRPERSON

SURVEYOR'S CERTIFICATE

I, MARK S. BECKLER, DO HEREBY CERTIFY THAT I AM A REGISTERED LAND SURVEYOR LICENSED UNDER THE LAWS OF THE STATE OF COLORADO, THAT THIS FIRST AMENDED PLAT OF LOT 5A, CARBONDALE MARKETPLACE SUBDIVISION IS A TRUE, CORRECT AND COMPLETE FIRST AMENDED PLAT OF LOT 5A, CARBONDALE MARKETPLACE SUBDIVISION AS LAID OUT, PLATTED, DEDICATED AND SHOWN HEREON, THAT SUCH PLAT WAS MADE FROM AN ACCURATE SURVEY OF SAID PROPERTY BY ME AND UNDER MY SUPERVISION AND CORRECTLY SHOWS THE LOCATION AND DIMENSIONS OF ALL LOTS, EASEMENTS AND STREETS OF SAID SUBDIVISION AS THE SAME ARE STAKED UPON THE GROUND IN COMPLIANCE WITH APPLICABLE REGULATIONS GOVERNING THE SUBDIVISION OF LAND.

IN WITNESS WHEREOF I HAVE SET MY HAND AND SEAL THIS ____ DAY OF _____, A.D., 2020.

MARK S. BECKLER, P.L.S. #28643

CLERK AND RECORDER'S CERTIFICATE

THIS FIRST AMENDED PLAT WAS FILED FOR RECORD IN THE OFFICE OF THE CLERK AND RECORDER OF GARFIELD COUNTY AT ____ O'CLOCK ____ M., ON THE ____ DAY OF _____, A.D., 2020, AND IS DULY RECORDED IN BOOK _____, PAGE _____, RECEPTION NO. _____.

CLERK AND RECORDER

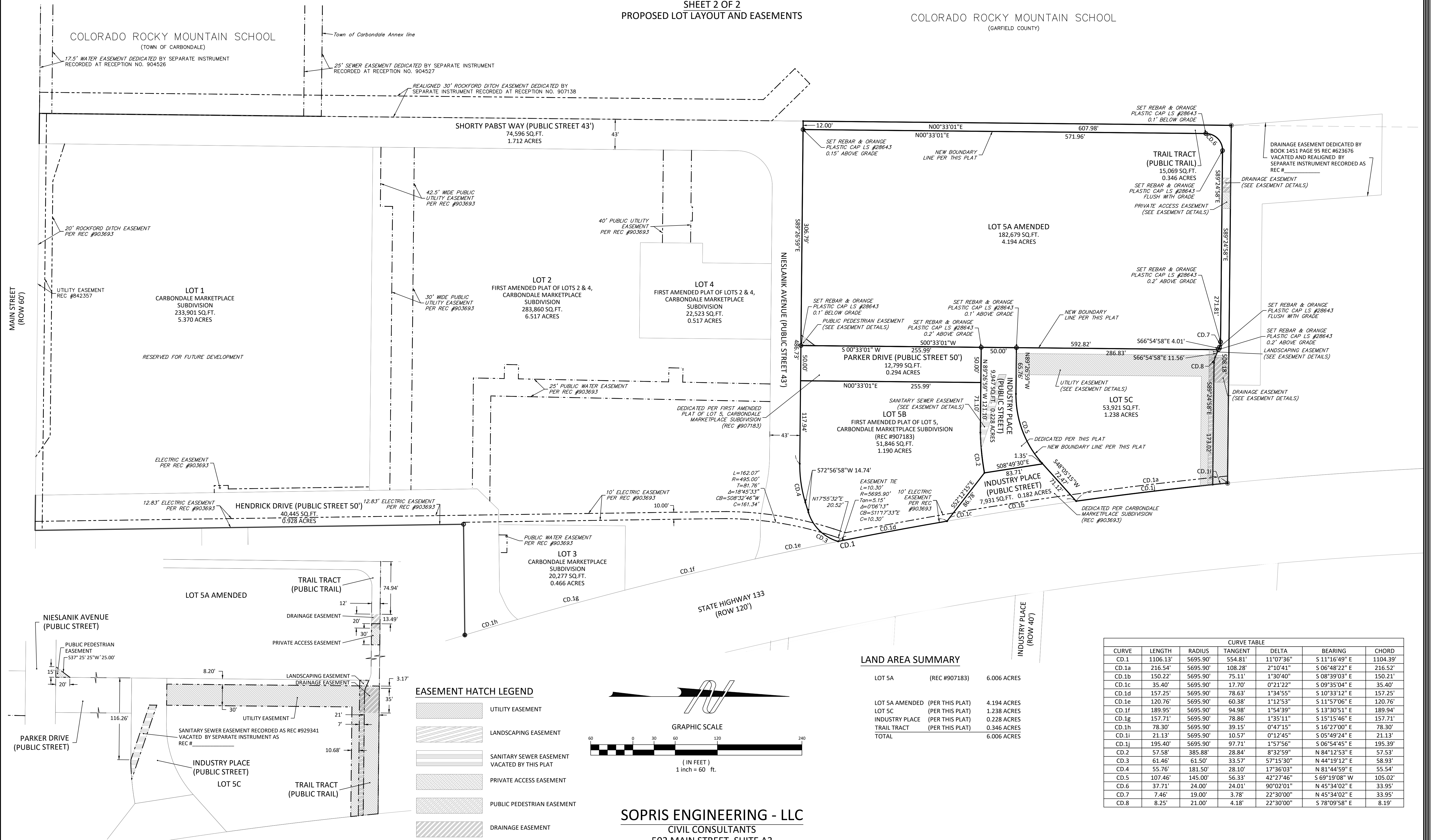
BY: _____
DEPUTY

LOT 5A, FIRST AMENDED PLAT OF LOT 5, CARBONDALE MARKETPLACE SUBDIVISION

A PARCEL OF LAND SITUATED IN SECTION 33, TOWNSHIP 7 SOUTH, RANGE 88 WEST OF THE 6th P.M.
TOWN OF CARBONDALE, COUNTY OF GARFIELD, STATE OF COLORADO

SHEET 2 OF 2
PROPOSED LOT LAYOUT AND EASEMENTS

COLORADO ROCKY MOUNTAIN SCHOOL
(GARFIELD COUNTY)



NOTICE: ACCORDING TO COLORADO LAW YOU MUST COMMENCE ANY LEGAL ACTION BASED UPON ANY DEFECT IN THIS SURVEY WITHIN THREE YEARS AFTER YOU FIRST DISCOVER SUCH DEFECT. IN NO EVENT MAY ANY ACTION BASED UPON ANY DEFECT IN THIS SURVEY BE COMMENCED MORE THAN TEN YEARS FROM THE DATE OF CERTIFICATION SHOWN HEREON.

EASEMENT DETAILS

SOPRIS ENGINEERING - LLC
CIVIL CONSULTANTS
502 MAIN STREET, SUITE A3
CARBONDALE, COLORADO 81623
(970) 704-0311 SOPRISENG@SOPRISENG.COM

Builders FirstSource
c/o Mark Berthold
7595 Technology Way, Suite 500
Denver, CO 80237
Email: mark.berthold@bldr.com

**RE: Builders FirstSource – Lumber Yard Development (Lot 5A & 5C, Carbondale Marketplace Subdivision)
– Engineering Report, SE Job #19206.03**

Dear Mark,

Sopris Engineering, LLC (SE) has prepared the following report to support a proposed development on Lot 5A of the Carbondale Marketplace Subdivision. Builders FirstSource is planning to construct three buildings (warehouse, office/retail building, showroom) along with a storage yard and a three sided shed to house materials. Lot 5A is located north of Nieslanik Avenue and west of Parker Drive in Carbondale. The information presented in this report is for a Major Site Plan Review by the Town and also includes a subdivision of Lot 5A as further described below.

Background and Project Summary

A subdivision plat for the Carbondale Marketplace Subdivision was recorded in February, 2018 splitting the 23.182 acre site into 5 lots. A second subdivision plat was recorded in May, 2018 splitting Lot 5 into Lots 5A and 5B. Lot 5B was developed by First Bank and the bank building opened in 2019. Lot 5A was reserved for future development. Lots 5A and 5B are located north of the City Market Development.

This development proposes to further subdivide Lot 5A into Lot 5A Amended and Lot 5C. The subdivision will include additional public street dedication on Industry Place and a public trail tract around the west and north limits of the site. The plat requirements have been included with the Town Application. Lot 5A Amended is where the Lumber Yard development is proposed. Lot 5C will be reserved for future development.

The proposed development on Lot 5A Amended includes a 17,000 SF warehouse, a two story building that has 6,000 SF of retail space on the ground level with 3,000 SF of office space on the upper level, and a 3,240 SF show room. A parking lot is proposed on the west side of the buildings. A storage yard is proposed north of the warehouse that will be fenced on all sides and includes a 24ft x 200ft shed to store materials. All vehicles, including delivery trucks, will enter the site from the Shorty Pabst Way/Nieslanik Avenue intersection. All vehicles, except delivery trucks, will leave the site at Shorty Pabst Way/Nieslanik Avenue. Delivery trucks will leave the site at a new driveway access off Parker Drive (Approximately 4-5 semi-trucks deliver per day).

Public improvements to serve and support development of both Lot 5A Amended and Lot 5C including utilities, irrigation, vehicle, and pedestrian access have been constructed as part of the Carbondale Marketplace Subdivision Improvement Agreement (SIA) and the Lot 5B (First Bank) SIA. The Lumber Yard development will modify some of those improvements and will add public infrastructure as well. Specifically, the intersections of Nieslanik Avenue/Shorty Pabst Way and Nieslanik Avenue/Parker Drive will be modified to account for truck delivery turn movements, sidewalk and street trees will be built on the west side of Parker Drive, and a public asphalt trail will be built around the west and north limits of the site. Other modifications have been explained later in this report.

A lot of effort and focus has gone into proposing a development compliant with the Town's Unified Development Code (UDC).

Existing Conditions

The existing site has historically been used for agriculture purposes and irrigated pasture land. The grade of the site generally sits lower than the elevation of the roads that border the site to the south and east. The soils include a top layer of approximately 6" – 12" of topsoil, a layer of approximately 18" of overburden, and then good, free draining gravels (essentially pit run and structural material) below the overburden. Public improvements have been installed in the Carbondale Marketplace Subdivision to serve and support development of Lot 5A Amended and Lot 5C.

Colorado Rocky Mountain School (CRMS) borders the site on the west boundary and the north boundary. Parker Drive borders the southern half of the east Lot 5A Amended boundary and First Bank is located on the east side of Parker Drive. Highway 133 borders the east side of Lot 5C boundary. Nieslanik Avenue borders the southern Lot 5A Amended boundary and the City Market Development is located south of Nieslanik Avenue.

Proposed Subdivision of Lot 5A

The development of the Existing Lot 5A (6.006 acres) site proposes subdividing the lot into four new parcels of land including additional road ROW dedication to the Town. The proposed subdivision will include Lot 5A Amended (4.194 acres), Lot 5C (1.238 acres), a public trail tract (0.346 acre), and Industry Place Public Street (0.228 acre).

Lot 5A Amended is where the Lumber Yard development will be located. Lot 5C will be reserved for future development. The public trail tract will include extension of the 10-ft wide asphalt trail along the west boundary of Lot 5A Amended and then east along the north boundary of Lot 5A Amended and Lot 5C where it will tie into the asphalt trail system that parallels Highway 133. The public trail tract is to be dedicated to the Town who will take over maintenance of the trail and tract once the improvements are completed. Details will be further described in the SIA that is part of this application. The ROW for Industry Place will extend to Parker Drive and the Lot 5A Amended boundary. This ROW dedication is for road extensions from a possible future roundabout on Highway 133.

See attached for a draft of SE's Engineer's cost estimate for public improvements associated with this development.

Vehicle Access

Vehicles will access the Carbondale Marketplace Subdivision generally from Highway 133. Most vehicles coming from the north will use the Nieslanik Avenue Highway access to enter the subdivision. Other vehicles entering the subdivision will be coming from the south off Main Street and may use Shorty Pabst Way. All vehicles, including delivery trucks, will enter the site from the Shorty Pabst Way/Nieslanik Avenue intersection. All vehicles, except delivery trucks, will leave the site at Shorty Pabst Way/Nieslanik Avenue. Delivery trucks will leave the site at a new driveway access off Parker Drive after they deliver materials in the storage yard (Approximately 4-5 semi-trucks deliver per day). Emergency access to the site will be from Nieslanik Avenue, Shorty Pabst Way, and/or Parker Drive.

Kimley-Horn Traffic Engineers prepared a traffic study for the initial Carbondale Marketplace Subdivision development. The study analyzed traffic generation to the site for the City Market development which included the grocery store, the gas station, and the neighboring retail building. The initial study included two Highway 133 access permits. The north access is at Nieslanik Avenue which provides access to the subject site. Further development in the subdivision has increased the amount of traffic to the site, specifically through the Nieslanik Avenue/Highway 133 access. If a development increases traffic by 20% or more, a revised CDOT Access Permit is required. Kimley-Horn has prepared an additional traffic study specific to the Lot 5A Amended and Lot 5C development. In that study, it was determined that traffic will increase by 20% or more. An Access Permit application will be provided with this application for the Nieslanik Avenue/Highway 133 access. The Town and Sopris Engineering will be signers on the permit application. Kimley-Horn does not anticipate that additional improvements will be required at Highway 133 at this time.

Drainage

A separate drainage study has been prepared for this project which addresses the Town requirements for stormwater drainage and management. The conclusions of the study suggest that no adverse impacts to the subject property or surrounding properties will result from the proposed development. The intent of the proposed grading and stormwater management for the project is to route stormwater over hard surfaces and landscaped surfaces to drains, inlets, and catch basins where water will then be carried through storm pipes to a central stormwater infrastructure location on the CRMS property north of the site. The system has been designed to detain the entire 100-yr, 1-hr storm event in the storm infrastructure and retention pond. Reference the drainage study for more details.

The grade of the existing site generally sits lower than the elevation of the roads that border the site to the south and east. SE has studied this closely and has come up with grading solutions to help balance the amount of import and export necessary in the earthwork construction to develop the site.

Construction Erosion Control

Temporary erosion control will be addressed in the Building Permit submittals. A state stormwater permit for erosion control will be necessary because the total disturbance area is more than 1.0 acre. The site will utilize erosion control which includes best management practices such as silt fence, log wattles, and truck tracking control onsite.

Utilities**Domestic Water System**

The subject lots fall within the Town of Carbondale's water service area. Water mains exist under Nieslanik Avenue to the south of the site and under Parker Drive to the east of the site. The water main under Parker Drive extends to the north boundary of proposed Lot 5C then east along the north boundary of Lot 5C and connects to the water main along Highway 133. The water service to the Lumber Yard buildings will be from the water main east of the site. Service to future development of Lot 5C is available from the existing water mains. A fire hydrant exists across Parker Drive on the east side of the site. Another fire hydrant is proposed at the southwest corner of the site. Note that the fire hydrants and isolation valves will be further coordinated with the Town and the fire department at building permit level design. All water improvements will be in compliance with the Town's rules, regulations, and specifications. See utility design drawings for more details.

Sanitary Sewer System

The subject lot falls within the Town of Carbondale's sanitary sewer service area. A sewer main exists north of Parker Drive that gravity feeds to the main line paralleling Highway 133. Sewer service would be extended from the Lumber Yard buildings to this sewer main and would allow gravity fed sewer to enter the main line. Sewer service for future development of Lot 5C is available from the existing sewer main. All sanitary sewer improvements will be in compliance with the Town's rules, regulations, and specifications. See utility design drawings for more details.

Electric/Telephone/Cable

Comcast, Century Link, Cedar Networks, and Xcel Energy utility conduits have been stubbed to the subject site on the east side of the property and on the south side of the property. Services for each of these utilities will be extended from the east side of the site to the Lumber Yard buildings. Utility service for future development of Lot 5C is available from the existing conduits and utility lines that have been installed. All installation will be in accordance with utility company standards. See utility drawings for more details.

Natural Gas

Black Hills Energy lines have been stubbed to the subject site at the southwest corner of Lot 5A Amended and a main line exists on the east side of the site as well. Gas service is planned to be extended to the warehouse building from the line on the east side of the site. Gas service for future development of Lot 5C is available from the existing gas lines that have been installed. All gas lines will be installed in accordance with the gas company standards. See utility design drawings for more details.

Rockford Ditch Share Allocation

The following describes analysis prepared by SE for the number of Rockford Ditch shares required to be allocated for the Lumber Yard development on Lot 5A Amended. (SE has not estimated the Rockford Ditch shares required for future development of Lot 5C at this time.) It should be noted that this analysis should not be considered final and the number of shares required to be allocated to the Town will be determined by the Town attorney and Town water rights engineer. This analysis is for estimation and information purposes only.

In this analysis, commercial spaces, industrial warehouses, areas to be irrigated, and other EQR triggers were tabulated with the corresponding EQR's per the Town code. The total EQR's were then converted to the required number of shares to be dedicated.

The proposed development for the Lumber Yard on Lot 5A Amended includes:

- 17,000 SF of Industrial Warehouse Space with 1 bathroom sink, 1 toilet, and 1 shower
- 6,000 SF of Commercial Retail Space with 2 bathroom sinks, 2 toilets, 1 urinal, and 1 kitchen sink
- 3,000 SF of Commercial Office Space with 2 bathroom sinks, 2 toilets, and 1 utility sink
- 3,240 SF of Commercial Showroom Space
- Irrigated Area Onsite – 24,443 SF (0.56 acres)

The Town's EQR table located within the municipal code shows the following EQR's per development type:

- Industrial
 - Industrial, including warehouses up to 8,000 SF w/ 2 sinks and 2 toilets – 1.00 EQR
 - Note that the proposed warehouse has 1 toilet, 1 bathroom sink, and 1 shower (less fixtures)
 - The additional shower has been ignored as there is 1 less sink and 1 less toilet provided
 - Industrial, for each additional 1,000 SF of floor space above 8,000 SF – 0.13 EQR
- Commercial Retail
 - Commercial retail with 2 sinks and 2 toilets up to 5,000 SF – 1.00 EQR
 - Note that the proposed retail space has 2 sinks, 2 toilets, 1 urinal, and 1 kitchen sink
 - Commercial retail, additional urinal with manual flush – 0.30 EQR/unit
 - Commercial retail, additional sink – 0.15 EQR/unit
 - Commercial retail, for each additional 1,000 SF of floor space above 5,000 SF – 0.02 EQR
- Commercial Office
 - Commercial office with 2 sinks and 2 toilets up to 7,000 SF – 1.00 EQR
 - Note that the proposed office space has 2 sinks, 2 toilets, and 1 utility sink
 - Commercial office additional sink – 0.15 EQR/sink
- Irrigated Area – 14.13 EQR's/acre

Based on the EQR dedication from the Town code, the proposed Lot 5A Amended development EQR's are:

- Warehouse Building (17,000 SF) – 2.17 EQR's
 - Industrial, including warehouses up to 8,000 SF: $1 \times 1.00 \text{ EQR} = 1.00 \text{ EQR}$
 - Industrial, for each additional 1,000 SF: $17,000 - 8,000 = 9,000 \text{ SF} \rightarrow 9 \times 0.13 \text{ EQR} = 1.17 \text{ EQR's}$
- Retail Building Space (6,000 SF) – 1.47 EQR's
 - Commercial retail up to 5,000 SF: $1 \times 1.00 \text{ EQR} = 1.00 \text{ EQR}$
 - Commercial retail, additional urinal with manual flush: $1 \times 0.30 \text{ EQR/unit} = 0.30 \text{ EQR}$
 - Commercial retail, additional sink: $1 \times 0.15 \text{ EQR/unit} = 0.15 \text{ EQR}$
 - Commercial retail, for each additional 1,000 SF: $6,000 - 5,000 = 1,000 \rightarrow 1 \times 0.02 \text{ EQR} = 0.02 \text{ EQR}$
- Office Building Space (3,000 SF) – 1.15 EQR's
 - Commercial office up to 7,000 SF: $1 \times 1.00 \text{ EQR} = 1.00 \text{ EQR}$
 - Commercial office additional sink: $1 \times 0.15 \text{ EQR} = 0.15 \text{ EQR}$
- Showroom Building Space (3,240 SF) – 1.00 EQR
 - Assume commercial retail up to 5,000 SF: $1 \times 1.00 \text{ EQR} = 1.00 \text{ EQR}$
- Irrigated Area – 7.91 EQR's
 - $0.56 \text{ acres} \times 14.13 \text{ EQR's/acre} = 7.91 \text{ EQR's}$

Total EQR's proposed for the Lumber Yard development on Lot 5A Amended equals **13.70 EQR's**. Based on the Town's Rockford Ditch water right change case decreed in Case No. 88CW421, 0.52 shares are required to be dedicated per each EQR. Thus, the Lumber Yard development should allocate an estimated **7.12 shares**.

Irrigation

Irrigation will be provided to Lot 5A Amended and Lot 5C from the Rockford Ditch. The Rockford Ditch is an irrigation ditch that runs through the Town of Carbondale generally from south to north. The ditch used to run through the Carbondale Marketplace Subdivision but it was piped around the subdivision when the public infrastructure was built in 2018 and 2019. An inline concrete diversion box was built to divert water to a central pump station located near the southwest corner of Lot 2. The pump station (currently under construction) will convey irrigation water from a storage vault to all lots in the subdivision. Irrigation stubs to serve the subject site exist at the southwest corner of Lot 5A Amended, the east boundary of Lot 5A Amended across from Lot 5B, and the irrigation line at Parker Drive is proposed to extend north and east for future stubs to serve Lot 5C and the Industry Place ROW. See the utility, landscape, and irrigation drawings for more details.

An analysis of peak daily irrigation demands was performed for the full buildout of the Carbondale Marketplace subdivision before Lot 5 (now Lots 5A, 5B, 5C, Parker Drive ROW, and Industry Place ROW) was planned for development. In that analysis, the peak daily demand for Lots 2, 3, and 4 (City Market Development) was applied to Lots 1 and 5 using a ratio of overall lot area versus the areas of the individual lots. The irrigated area proposed for the City Market Development was approximately 1.60 acres with peak irrigation demand of 3,960 gallons per day. By applying the area ratios, the peak irrigation demand for the full buildout of the subdivision was 10,500 gallons per day. To be conservative, not knowing what Lot 1 and 5 developments would be, the demand was doubled and an 80% efficiency was applied resulting in a peak full buildout irrigation demand of 26,150 gallons per day or about 20 gallons per minute.

The pump that conveys irrigation water to the lots has been designed with a 20 gallons per minute rate. For comparison purposes, the irrigated area proposed for Lot 5A amended is approximately 0.56 acres, the irrigated area of Lot 5B (First Bank) is approximately 0.63 acres, 20% area of the Lot 5C site is approximately 0.25 acres, and the irrigated area within the public ROW's adjacent to Lots 5A, 5B, and 5C is 0.16 acres for a total of 1.60 acres. That area is the same as the irrigated area of the City Market development (1.60 acres). The irrigation system for Lot 5A Amended and Lot 5C will be designed with a 20 gallons per minute water supply. Coordination between the irrigation systems for City Market, Lot 5A Amended, and future Lot 5C will be required for alternating irrigation time.

Conclusion:

Based on the proposed layout and design, the existing and proposed access, drainage, utility, ditch share allotment, irrigation, and site improvements have been addressed per the Town of Carbondale requirements for review and submittal.

If you have any questions or need any additional information, please call (970) 704-0311.

Sincerely,
SOPRIS ENGINEERING, LLC



Kyle Sanderson, PE
Project Manager

BUILDERS FIRSTSOURCE
 LOT 5A AND 5C - CARBONDALE MARKETPLACE SUBDIVISION
 ESTIMATED CONSTRUCTION COSTS FOR PUBLIC IMPROVEMENTS
 SE JOB #19206.03 - APRIL 6, 2020

ITEM		QUANTITY	UNIT	UNIT COST	COST
GENERAL					
G1	MOBILIZATION	1.00	L.S.	\$ 10,000.00	\$ 10,000.00
G2	CLEAR AND GRUB	1.00	L.S.	\$ 5,000.00	\$ 5,000.00
G3	STRIP AND STAGE TOPSOIL, ASSUME 6" THICK	405.00	C.Y.	\$ 5.00	\$ 2,025.00
G4	STRIP AND STAGE OVERBURDEN, ASSUME 18" THICK	1,215.00	C.Y.	\$ 5.00	\$ 6,075.00
G5	TRAFFIC CONTROL	1.00	L.S.	\$ 5,000.00	\$ 5,000.00
G6	SURVEY, CONSTRUCTION ADMIN, TESTING, AS BUILTS	1.00	L.S.	\$ 20,000.00	\$ 20,000.00
SUBTOTAL G1-G6					\$ 48,100.00
DEMOLITION					
D1	REMOVE EX NIESLANIK AVE CONCRETE (FILLET, C&G, RAMPS)	810.00	S.F.	\$ 30.00	\$ 24,300.00
D2	SAWCUT EXISTING ASPHALT	65.00	L.F.	\$ 5.00	\$ 325.00
D3	REMOVE EX NIESLANIK AVE ASPHALT (PATH AND ROAD)	25.00	S.Y.	\$ 40.00	\$ 1,000.00
SUBTOTAL D1-D3					\$ 25,625.00
UTILITY & IRRIGATION IMPROVEMENTS					
U1	FIRE HYDRANT ASSEMBLY AND VALVE	1.00	EACH	\$ 7,500.00	\$ 7,500.00
U2	ADJUST/RELOCATE IRRIGATION VAULT & CONDUIT AT NIES/SHORTY	1.00	L.S.	\$ 2,000.00	\$ 2,000.00
U3	ADJUST/RELOCATE IRRIGATION CONDUIT AT NIES/PARKER	1.00	L.S.	\$ 1,500.00	\$ 1,500.00
U4	ADJUST/RELOCATE LIGHT POLE BASE	2.00	EACH	\$ 5,000.00	\$ 10,000.00
U5	EXTEND IRRIGATION LINE AT PARKER/INDUSTRY	100.00	LF	\$ 10.00	\$ 1,000.00
SUBTOTAL U1-U5					\$ 22,000.00
ROAD, SIDEWALK, PATH, & LANDSCAPING IMPROVEMENTS					
S1	EXCAVATION & GRADING	1.00	L.S.	\$ 10,000.00	\$ 10,000.00
S2	CLASS 6 ABC - ASPHALT TRAIL (4" w/ 12" x 8" GRAVEL SHOULDER)	190.00	C.Y.	\$ 40.00	\$ 7,600.00
S3	CLASS 6 ABC - CONCRETE SIDEWALK (4" w/ 12" x 4" OUTSIDE WALK)	46.00	C.Y.	\$ 40.00	\$ 1,840.00
S4	CLASS 6 ABC - 8" UNDER OTHER CONCRETE AND ASPHALT	110.00	C.Y.	\$ 40.00	\$ 4,400.00
S5	4" ASPHALT ON PARKER AND NIESLANIK/SHORTY INTERSECTION	225.00	S.Y.	\$ 24.00	\$ 5,400.00
S6	4" ASPHALT TRAIL	1,225.00	S.Y.	\$ 24.00	\$ 29,400.00
S7	CONCRETE FILLETS AT NIESLANIK & PARKER (INCLUDES CURB)	1,185.00	S.F.	\$ 12.00	\$ 14,220.00
S8	CONCRETE SIDEWALK	2,630.00	S.F.	\$ 8.00	\$ 21,040.00
S9	CONCRETE CURB & GUTTER (6" CURB, 18" GUTTER)	100.00	L.F.	\$ 35.00	\$ 3,500.00
S10	CONCRETE HANDICAP RAMPS, WARNING PADS (INCLUDES CURB)	525.00	S.F.	\$ 35.00	\$ 18,375.00
S11	SIGNAGE AND STRIPING (PARKER AND INDUSTRY)	1.00	L.S.	\$ 2,000.00	\$ 2,000.00
S12	LANDSCAPE BUFFER WITH DRIP IRRIGATION (PUBLIC ROADS)	4,925.00	S.F.	\$ 2.00	\$ 9,850.00
S13	STREET TREES ALONG PARKER DRIVE	8.00	EACH	\$ 650.00	\$ 5,200.00
S14	REMOVE/RELOCATE CATTLE FENCE ADJACENT TO CRMS PROPERTY	1,115.00	L.F.	\$ 8.00	\$ 8,920.00
S15	RELOCATE TYPE 3 BARRICADES ON NORTH END OF PARKER	1.00	L.S.	\$ 500.00	\$ 500.00
SUBTOTAL S1-S15					\$ 142,245.00
SUBTOTAL					\$ 237,970.00
10% CONTINGENCY					\$ 23,797.00
TOTAL PUBLIC IMPROVEMENTS					\$ 261,767.00

This opinion of probable cost was prepared for budgeting purposes only. Sopris Engineering, LLC cannot be held responsible for variances from this estimate as actual cost may vary due to bid and market fluctuation.



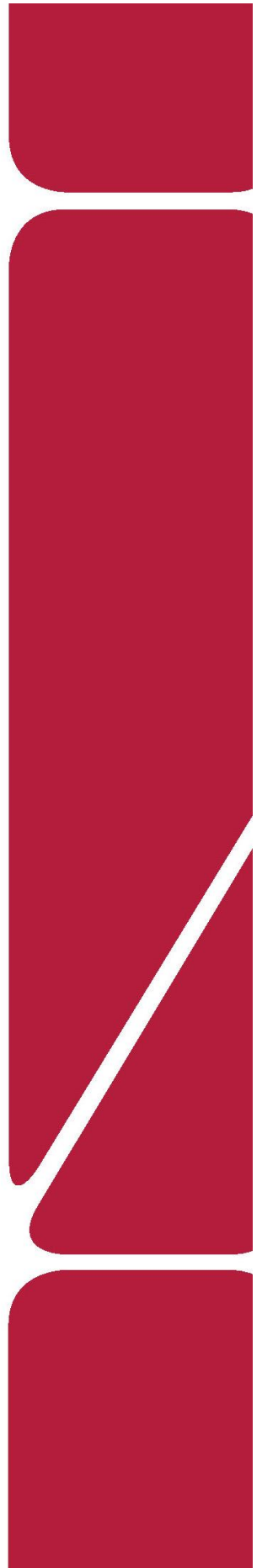
Traffic Impact Study

Carbondale Marketplace
Lots 5A, 5B, and 5C
Carbondale, Colorado

Prepared for:

Sopris Engineering LLC

Kimley»Horn



T R A F F I C I M P A C T S T U D Y

Carbondale Marketplace Lots 5A, 5B, and 5C

Carbondale, Colorado

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March 2020

This document, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.

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1.0 EXECUTIVE SUMMARY

A new mixed-use development, Carbondale Marketplace Lots 5A, 5B, and 5C, is proposed to the northwest of the Nieslanik Avenue and State Highway 133 (SH-133) intersection in Carbondale, Colorado. The Carbondale Marketplace Lots 5A, 5B, and 5C project is planned to include a Builders FirstSource lumber yard with approximately 17,000 square feet of warehouse, 6,000 square feet of retail, 3,000 square feet of office, and 3,240 square feet of show room space on Lot 5A. In addition, an existing approximate 5,860 square foot FirstBank on Lot 5B, and an approximate 10,000 square foot building, split as 5,000 square feet of retail space and 5,000 square feet of office space for purposes of this study, will constitute the remainder of Lot 5 on Lot 5C. For reference, Lot 1 of Carbondale Marketplace was identified as Main Street Marketplace and Lots 2 through 4 of Carbondale Marketplace is the City Market Retail Center. Main Street Marketplace (Carbondale Marketplace Lot 1) was evaluated in a previous October 2018 traffic study to include 115 residential units and 10,474 square feet of retail space. City Market Grocery and Gas Station (Carbondale Marketplace Lots 2 through 4) was evaluated in a previous February 2016 traffic study to include a 59,195 square foot grocery store, a 9,513 square foot inline retail building (to include 2,000 square feet of restaurant space), and a 14 fueling position gas station.

The purpose of this study is to identify project traffic generation characteristics, to identify potential project traffic related impacts on the local street system, and to develop mitigation measures required for identified impacts. The following intersections were incorporated into this traffic study in accordance with Town of Carbondale and State of Colorado Department of Transportation (CDOT) standards and requirements:

- SH-133 and Nieslanik Avenue
- Main Street and Hendrick Drive
- Main Street and SH-133 Roundabout

In addition, the proposed future intersection of Main Street and Shorty Pabst Way (western access) was included. It is expected that project construction will be completed within a couple of years. Analysis was therefore completed for the 2022 short term build out horizon as well as the 2040 long-term twenty-year horizon.

Regional access to Carbondale Marketplace will be provided by State Highway 82 (SH-82) and State Highway 133 (SH-133). Primary access to the proposed Carbondale Marketplace is to be provided by SH-133 and Main Street. Direct access to the proposed project is to be provided by two accesses along Main Street (Shorty Pabst Way and Hendrick Drive) and two along SH-133 at the Hendrick Drive extension and Nieslanik Avenue.

Full build out of Carbondale Marketplace Lots 5A, 5B, and 5C development to include the existing FirstBank (Lot 5B), the proposed Builders FirstSource (Lot 5A) and assumed adjacent 10,000 square foot retail/office building (Lot 5C) is expected to generate approximately 1,264 daily weekday trips. Of these, 115 trips are expected to occur during the morning peak hour, while 191 trips are expected during the afternoon peak hour.

Based on the analysis presented in this report, Kimley-Horn believes the proposed Carbondale Marketplace Lots 5A, 5B, and 5C will be successfully incorporated into the existing and future roadway network. The proposed project development and expected traffic volumes resulted in the following recommendations/conclusions:

- The threshold for requiring an access permit along CDOT roadways occurs when project traffic is anticipated to increase the existing access traffic volumes by more than 20 percent. Based on traffic projections, the addition of project traffic on the west leg of Main Street at the SH-133 roundabout is not anticipated to increase existing access traffic volumes by more than 20 percent; therefore, it is believed that an access permit will not be required by CDOT for this intersection in association with this project. However, based on traffic projections, the addition of project traffic on the Nieslanik Avenue access along SH-133 is anticipated to increase traffic volumes by more than 20 percent over what was initially planned; therefore, it is believed that an access permit will be required by CDOT for this intersection in association with this project.
- With completion of the project, it is believed that three accesses will be used for traffic generated by Carbondale Marketplace Lots 5A, 5B, and 5C. Two of these accesses are located along Main Street that will allow full turning movements and one is located on SH-133 at Nieslanik Avenue that provides three-quarter turning movements. The western

access (Shorty Pabst Way) will be located approximately 800 feet west of the Main Street/SH-133 roundabout. Hendrick Drive, where the east access aligns will be the public right-of-way extension of Hendrick Drive, is located approximately 375 feet west of the roundabout edge. This roadway extension connects with SH-133 as well which provides access to Lots 1, 2, 3, and 4. The SH-133 and Hendrick Drive intersection allows three-quarter movements. The three-quarter movement access on SH-133 located at the intersection of Nieslanik Avenue is located approximately 1,000 feet north of the edge of the Main Street and SH-133 roundabout.

- With the construction of the north-south public roadway, Shorty Pabst Way along the west side of the project, it is recommended the intersection with Main Street be unsignalized with stop control on the southbound approach. It is recommended that an R1-1 “STOP” sign be installed for this approach. Single shared movement lanes are recommended on all three approaches at this intersection. Sight distance required for a driver turning from the southbound stop-controlled approach is 280 feet to the right (for a left turn movement) and 240 feet to the left (for a right turn movement). These distances are measured from a vertex point of the sight triangle 14.5 feet from the edge of the traveled way to a point in the middle of the approaching through lane.
- It is recommended that a north leg be constructed for the public right of way extension of Hendrick Drive at the Main Street and Hendrick Drive intersection. It is recommended that this intersection operate with All-Way Stop Control with R1-1 “STOP” signs and R1-4 “ALL WAY” plaques installed for each approach. Based on the operational analysis, one shared movement lane is anticipated to be sufficient to accommodate traffic in all directions.
- By 2040, the eastbound and westbound approaches of the Main Street and SH-133 roundabout may need to include separate right turn lanes. Traffic volumes should be monitored in the future at this intersection to determine if and when this improvement is necessary.

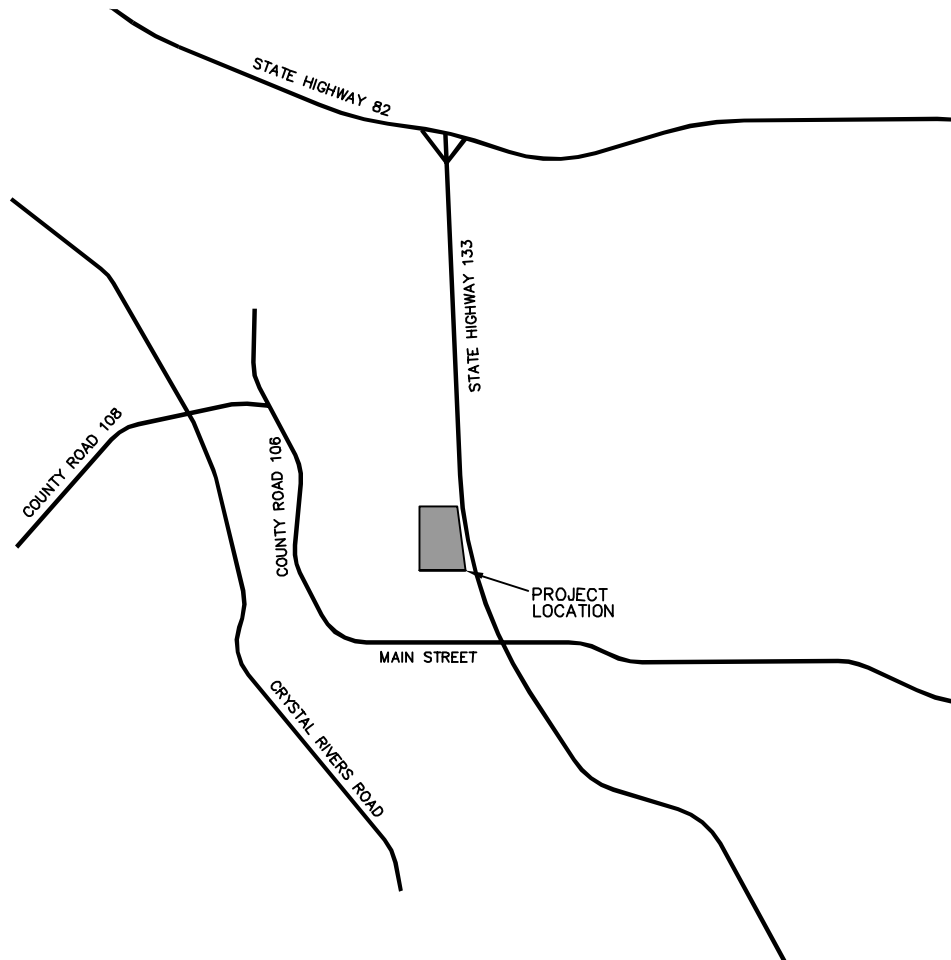
- All on-site and off-site signing and striping improvements should be incorporated into the Civil Drawings, and conform to Town of Carbondale and CDOT standards, as well as the Manual on Uniform Traffic Control Devices – 2009 Edition (MUTCD).

2.0 INTRODUCTION

Kimley-Horn and Associates, Inc. (Kimley-Horn) has prepared this report to document the results of a Traffic Impact Study of future traffic conditions associated with the proposed Carbondale Marketplace Lots 5A, 5B, and 5C project. The development is proposed to the northwest of the Nieslanik Avenue and State Highway 133 (SH-133) intersection in Carbondale, Colorado. A vicinity map illustrating the location of the project is shown in **Figure 1**.

The purpose of this study is to identify project traffic generation characteristics, to identify potential project traffic related impacts on the local street system, and to develop mitigation measures required for identified impacts. The intersections of SH-133/Nieslanik Avenue, Main Street/Hendrick Drive, and Main Street/SH-133 Roundabout were incorporated into this traffic study in accordance with Town of Carbondale and State of Colorado Department of Transportation (CDOT) standards and requirements. In addition, the proposed future intersection of Main Street and Shorty Pabst Way (western access) was included. It is expected that project construction will be completed within the next couple of years; therefore, analysis was completed for the 2022 build out horizon as well as the 2040 long-term twenty-year horizon.

The Carbondale Marketplace Lots 5A, 5B, and 5C project is planned to include a Builders FirstSource lumber yard with approximately 17,000 square feet of warehouse, 6,000 square feet of retail, 3,000 square feet of office, and 3,240 square feet of show room space on Lot 5A. In addition, an existing approximate 5,860 square foot FirstBank on Lot 5B, and an approximate 10,000 square foot building, split as 5,000 square feet of retail space and 5,000 square feet of office space for purposes of this study, will constitute the remainder of Lot 5 on Lot 5C. For reference, Lot 1 of Carbondale Marketplace was identified as Main Street Marketplace and Lots 2 through 4 of Carbondale Marketplace is the City Market Retail Center. Main Street Marketplace (Carbondale Marketplace Lot 1) was evaluated in a previous October 2018 traffic study to include 115 residential units and 10,474 square feet of retail space. City Market Grocery and Gas Station (Carbondale Marketplace Lots 2 through 4) was evaluated in a previous February 2016 traffic study to include a 59,195 square foot grocery store, a 9,513 square foot inline retail building (to include 2,000 square feet of restaurant space), and a 14 fueling position gas station. Conceptual site plans are provided within **Appendix F**.



CARBONDALE MARKETPLACE LOTS 5A/5B/5C
(NWC SH-133 AND NIESLANIK AVE)
CARBONDALE, CO
VICINITY MAP

FIGURE 1

3.0 EXISTING AND FUTURE CONDITIONS

3.1 Existing and Future Roadway Network

Regional access to Carbondale Marketplace will be provided by State Highway 82 (SH-82) and State Highway 133 (SH-133). Primary access to the proposed Carbondale Marketplace is to be provided by SH-133 and Main Street. Direct access to the proposed project is to be provided by two accesses along Main Street (Shorty Pabst Way and Hendrick Drive) and two along SH-133 at the Hendrick Drive extension and Nieslanik Avenue.

The accesses along Main Street are to include two full movement driveways. The western access, Shorty Pabst Way, will intersect with Main Street approximately 800 feet west of the Main Street/SH-133 roundabout intersection (measured edge to edge). The eastern full movement access along Main Street is proposed to align with Hendrick Drive, and be the public right-of-way extension of this roadway, approximately 375 feet west of the roundabout (edge to edge). The access along SH-133 includes a three-quarter movement driveway, which aligns with Nieslanik Avenue. This access is located approximately 1,000 feet north of the Main Street/SH-133 roundabout (also measured edge to edge). Of note, this access was identified by the Access Control Plan to be a full movement access but has been constructed providing three-quarter movements as full movements are anticipated to be served by a future roundabout at the Industry Place/SH-133 roundabout intersection located 350 feet to the north.

Main Street provides one lane of travel each direction, eastbound and westbound, and has a posted speed limit of 25 miles per hour to the west of the roundabout intersection. Main Street is a major east-west roadway through Carbondale. SH-133 is a CDOT roadway, categorized as NR-B: Non-Rural Arterial classification with a speed limit of 35 miles per hour adjacent to the site. SH-133 provides one lane of travel each direction, northbound and southbound, and is separated by a two-way left-turn lane. Hendrick Drive provides one lane of travel each direction, northbound and southbound, with a posted speed limit of 20 miles per hour. Hendrick Drive primarily serves as a collector street to provide rear commercial access as well as access to residential local streets further south. Hendrick Drive currently ends at Main Street at its northern terminus. With completion of the project, Hendrick Drive will extend north of Main

Street to provide access to City Market and this Carbondale Marketplace Lots 5A, 5B, and 5C development.

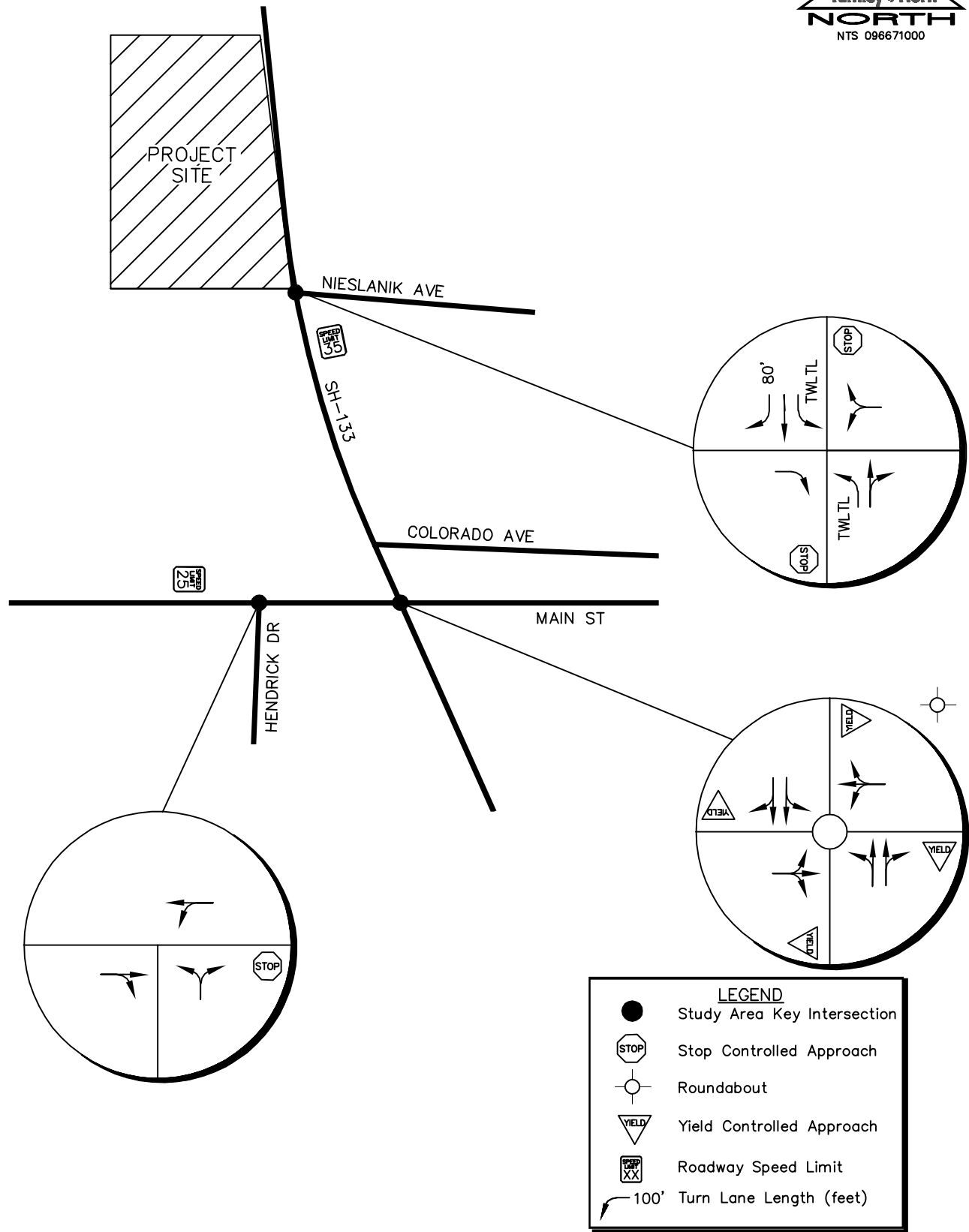
The Main Street and SH-133 intersection is a roundabout, with the northbound and southbound approaches having two approach lanes, while the eastbound and westbound approaches have one approach lane. The Main Street and Hendrick Drive intersection is unsignalized with stop control on northbound Hendrick Drive. No designated turn lanes exist at this intersection. The SH-133 and Nieslanik Avenue intersection is unsignalized with stop control on the eastbound and westbound Nieslanik Avenue approaches. There is a two-way left turn lane on SH-133 at this intersection. Existing intersection lane configurations and control for the study area are shown in **Figure 2**.

3.2 Existing Study Area

A new mixed-use development, Carbondale Marketplace Lots 5A, 5B, and 5C, is proposed northwest of the SH-133 and Nieslanik Avenue intersection. The existing site is comprised of the recently opened FirstBank and vacant land. The surrounding area contains a mix of uses. Directly adjacent to the site to the west and north is more vacant land. Directly adjacent to the site to the east across SH-133 is commercial and industrial uses. South of the site, construction is currently underway on City Market Grocery and a Gas Station.

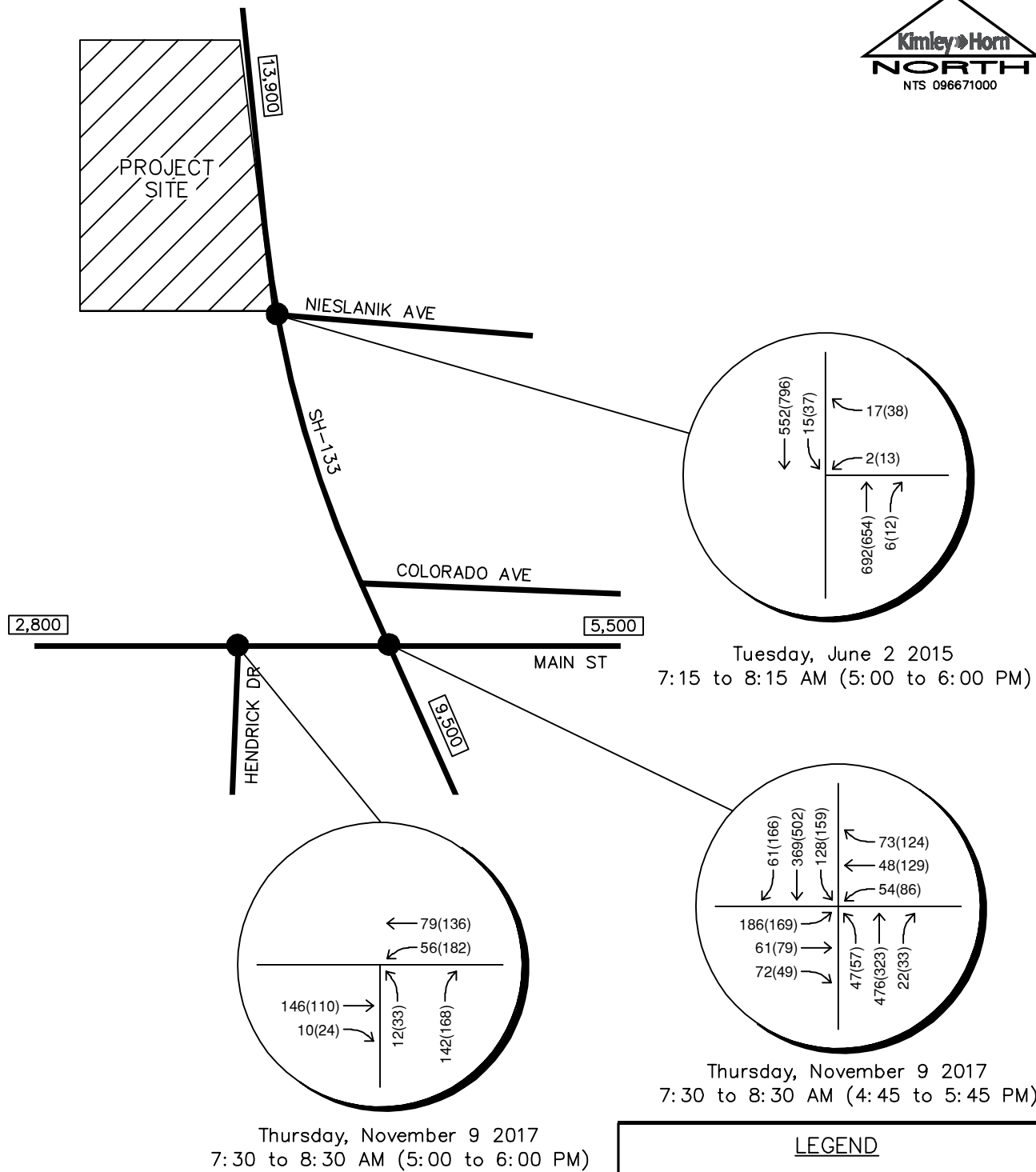
3.3 Existing Traffic Volumes

Existing peak hour turning movement counts for the intersection of Nieslanik Avenue and SH-133 was conducted on Tuesday, June 2, 2015. Existing peak hour turning movement counts for the intersections of Main Street and Hendrick Drive, and Main Street and SH-133 were conducted on Thursday, November 9, 2017. These counts were used as they represented traffic volume prior to any development or construction activity for Main Street Marketplace (Carbondale Marketplace Lot 1), City Market Retail Center (Carbondale Marketplace Lots 2 through 4), and the FirstBank (first user of Carbondale Marketplace Lots 5A, 5B, and 5C). The weekday counts were conducted in 15-minute intervals during the morning and afternoon peak hours of adjacent street traffic from 7:00 AM to 9:00 AM and 4:00 PM to 6:00 PM, respectively. These turning movement counts are shown in **Figure 3** with count sheets provided in **Appendix A**.



CARBONDALE MARKETPLACE LOTS 5A/5B/5C
 (NWC SH-133 AND NIESLANIK AVE)
 EXISTING LANE CONFIGURATIONS

FIGURE 2

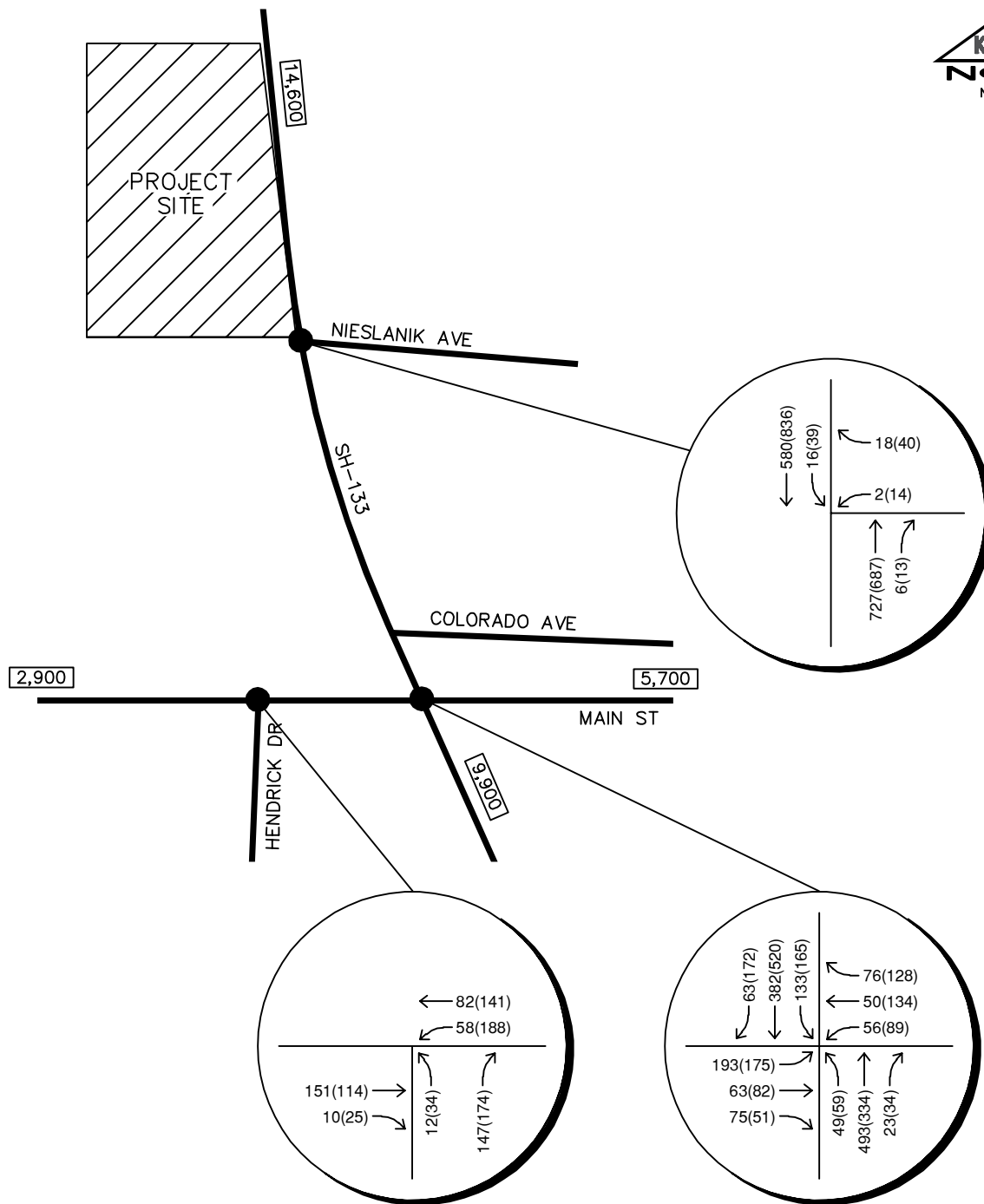


CARBONDALE MARKETPLACE LOTS 5A/5B/5C
 (NWC SH-133 AND NIESLANIK AVE)
 EXISTING TRAFFIC VOLUMES

FIGURE 3

3.4 Unspecified Development Traffic Growth

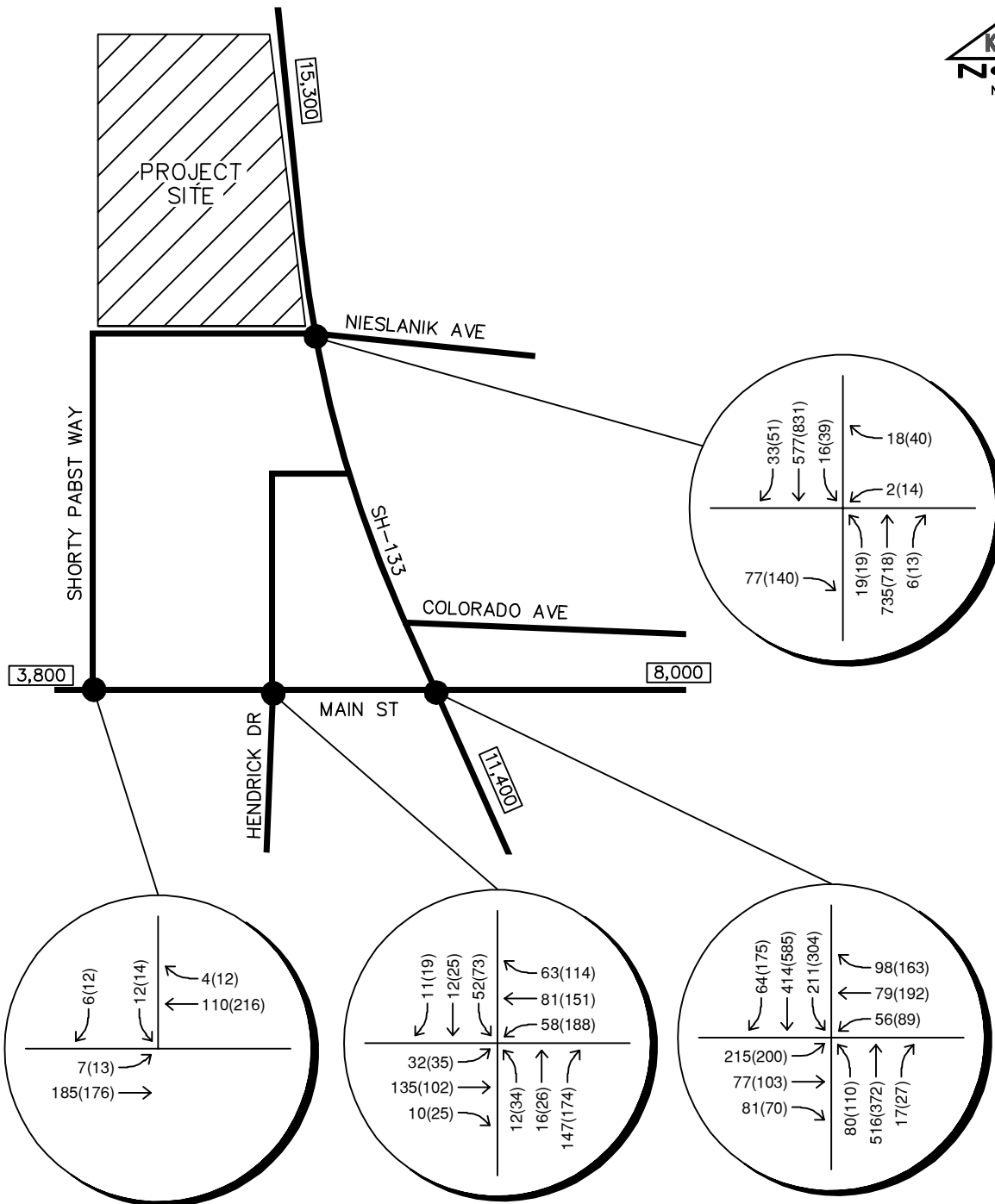
According to information provided on the website for the Colorado Department of Transportation, the 20-year growth factor along SH-133 adjacent to the site is 1.15. This value equates to annual growth rates of approximately 0.70 percent. Traffic information from the CDOT Online Transportation Information System (OTIS) website is included in **Appendix B**. Based on this, an annual growth rate of 0.70 percent was used to calculate existing 2020 and future traffic volumes. This annual growth rate was used to estimate existing year 2020, near term 2022, and long term 2040 traffic volume projections at the key intersections. In addition, project traffic volume estimates for the adjacent City Market and Main Street Marketplace development (traffic assignment also included in Appendix B) to the south were included within the background traffic volumes for 2022 and 2040. Existing year 2020 and background traffic volumes for 2022 and 2040 are shown in **Figures 4, 5, and 6** respectively.



LEGEND	
	Study Area Key Intersection
xxx(xxx)	2020 Weekday AM(PM) Peak Hour Traffic Volumes
xx,x00	Estimated Daily Traffic Volume

CARBONDALE MARKETPLACE LOTS 5A/5B/5C
(NWC SH-133 AND NIESLANIK AVE)
EXISTING ADJUSTED TRAFFIC VOLUMES

FIGURE 4

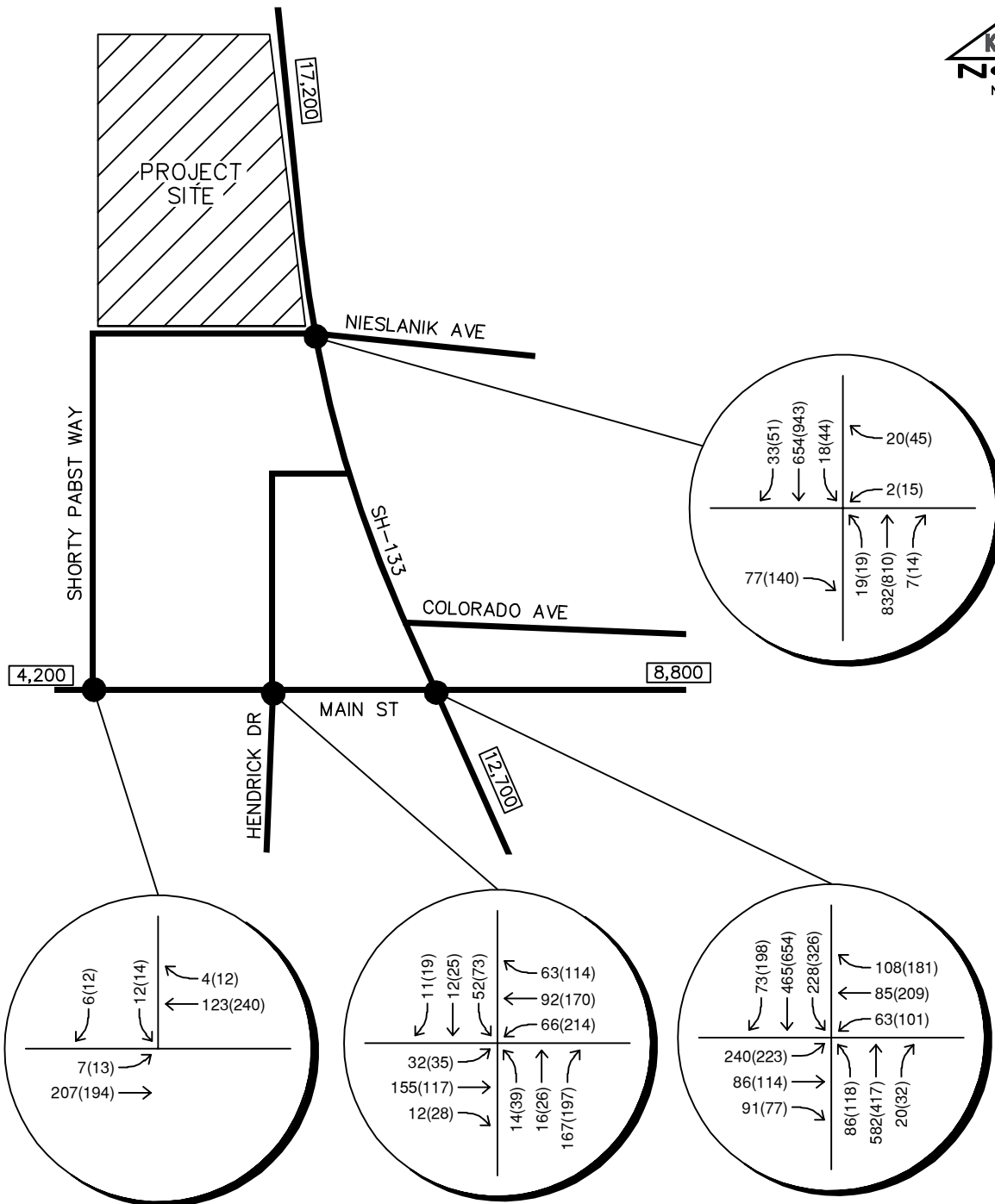


LEGEND

- Study Area Key Intersection
- xxx(xxx) 2022 Weekday AM(PM) Peak Hour Traffic Volumes
- xx,x00 Estimated Daily Traffic Volume

CARBONDALE MARKETPLACE LOTS 5A/5B/5C
(NWC SH-133 AND NIESLANIK AVE)
2022 BACKGROUND TRAFFIC VOLUMES

FIGURE 5



LEGEND	
●	Study Area Key Intersection
xxx(xxx)	2040 Weekday AM(PM) Peak Hour Traffic Volumes
xx,x00	Estimated Daily Traffic Volume

CARBONDALE MARKETPLACE LOTS 5A/5B/5C
(NWC SH-133 AND NIESLANIK AVE)
2040 BACKGROUND TRAFFIC VOLUMES

FIGURE 6

4.0 PROJECT TRAFFIC CHARACTERISTICS

4.1 Trip Generation

Site-generated traffic estimates are determined through a process known as trip generation. Rates and equations are applied to the proposed land use to estimate traffic generated by the development during a specific time interval. The acknowledged source for trip generation rates is the *Trip Generation*¹ published by the Institute of Transportation Engineers (ITE). ITE has established trip rates in nationwide studies of similar land uses.

The Carbondale Marketplace Lots 5A, 5B, and 5C project is planned to include a Builders FirstSource lumber yard with approximately 17,000 square feet of warehouse, 6,000 square feet of retail, 3,000 square feet of office, and 3,240 square feet of show room space on Lot 5A. In addition, an existing approximate 5,860 square foot FirstBank on Lot 5B, and an approximate 10,000 square foot building, split as 5,000 square feet of retail space and 5,000 square feet of office space for purposes of this study, will constitute the remainder of Lot 5 on Lot 5C. Although the FirstBank is open, it wasn't when the counts were conducted. Therefore, it is treated as a new project in this traffic study. Also, the Builders FirstSource is a unique use for this site. Based on this, Kimley-Horn used the ITE *Trip Generation* average rate equations for Office Building (ITE 710), Shopping Center (ITE 820), and Drive-in Bank (ITE 912) and client provided trip generation for the Builders FirstSource lumber yard for traffic associated with the proposed project. The trip generation worksheets and calculations are included in **Appendix C**. The recommended ITE procedure for determination of using the average rate equations or fitted curve equations were applied to the proposed land uses.

Based on the proposed project and ITE/CDOT procedure for calculating trip generation, full buildout of Carbondale Marketplace Lots 5A, 5B, and 5C development to include the existing FirstBank (Lot 5B), the proposed Builders FirstSource (Lot 5A) and assumed adjacent 10,000 square foot retail/office building (Lot 5C) is expected to generate approximately 1,264 daily weekday trips. Of these, 115 morning peak hour trips and 191 afternoon peak hour trips are expected. **Table 1** summarizes the project traffic generation.

¹ Institute of Transportation Engineers, *Trip Generation Manual*, Tenth Edition, Washington DC, 2017.

Table 1 – Carbondale Marketplace Lots 5A, 5B, and 5C Project Traffic Generation

Lot	Land Use	Vehicles Trips						
		Daily	Weekday AM Peak Hour			Weekday PM Peak Hour		
			In	Out	Total	In	Out	Total
5A	Client Generated – Builders FirstSource	438	35	13	48	9	37	46
5B	Drive-In Bank (ITE 912) 5,860 Square Feet	588	32	24	56	60	60	120
5C	Office Building (ITE 710) 5,000 Square Feet	50	5	1	6	1	5	6
	Shopping Center (ITE 820) 5,000 Square Feet	188	3	2	5	9	10	19
Total Trips		1,264	75	40	115	79	112	191

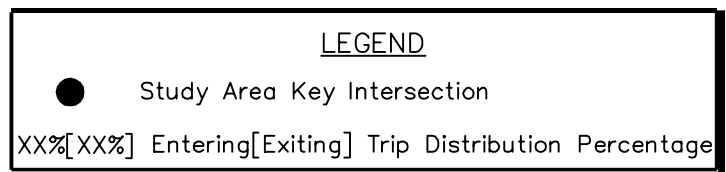
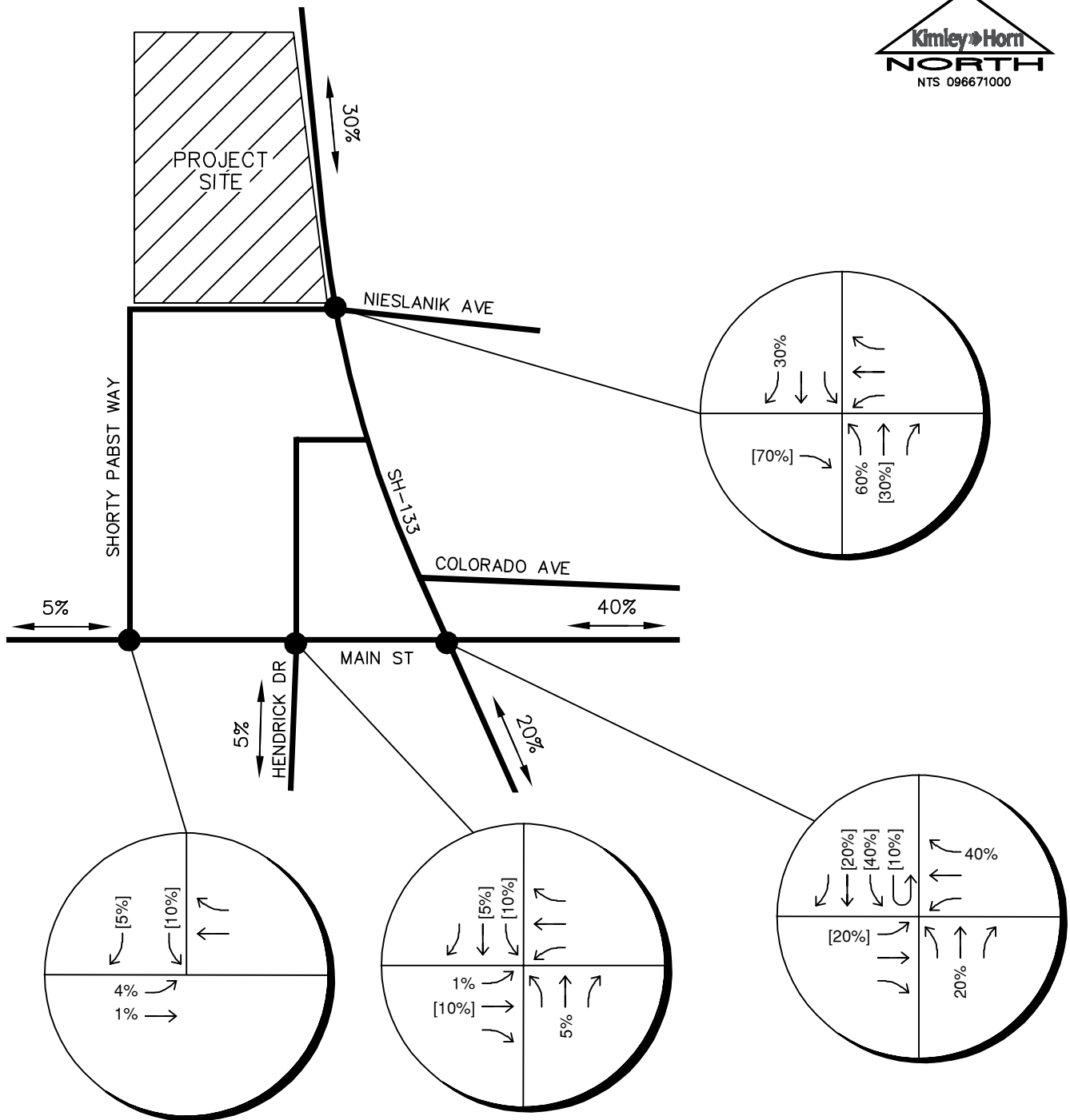
4.2 Trip Distribution

Distribution of site traffic on the street system was based on the area street system characteristics, existing traffic patterns and volumes, and the proposed access system for the project. The directional distribution of traffic is a means to quantify the percentage of site-generated traffic that approaches the site from a given direction and departs the site back to the original source. **Figure 7** illustrates the expected trip distribution for the project.

4.3 Traffic Assignment and Total (Background Plus Project) Traffic

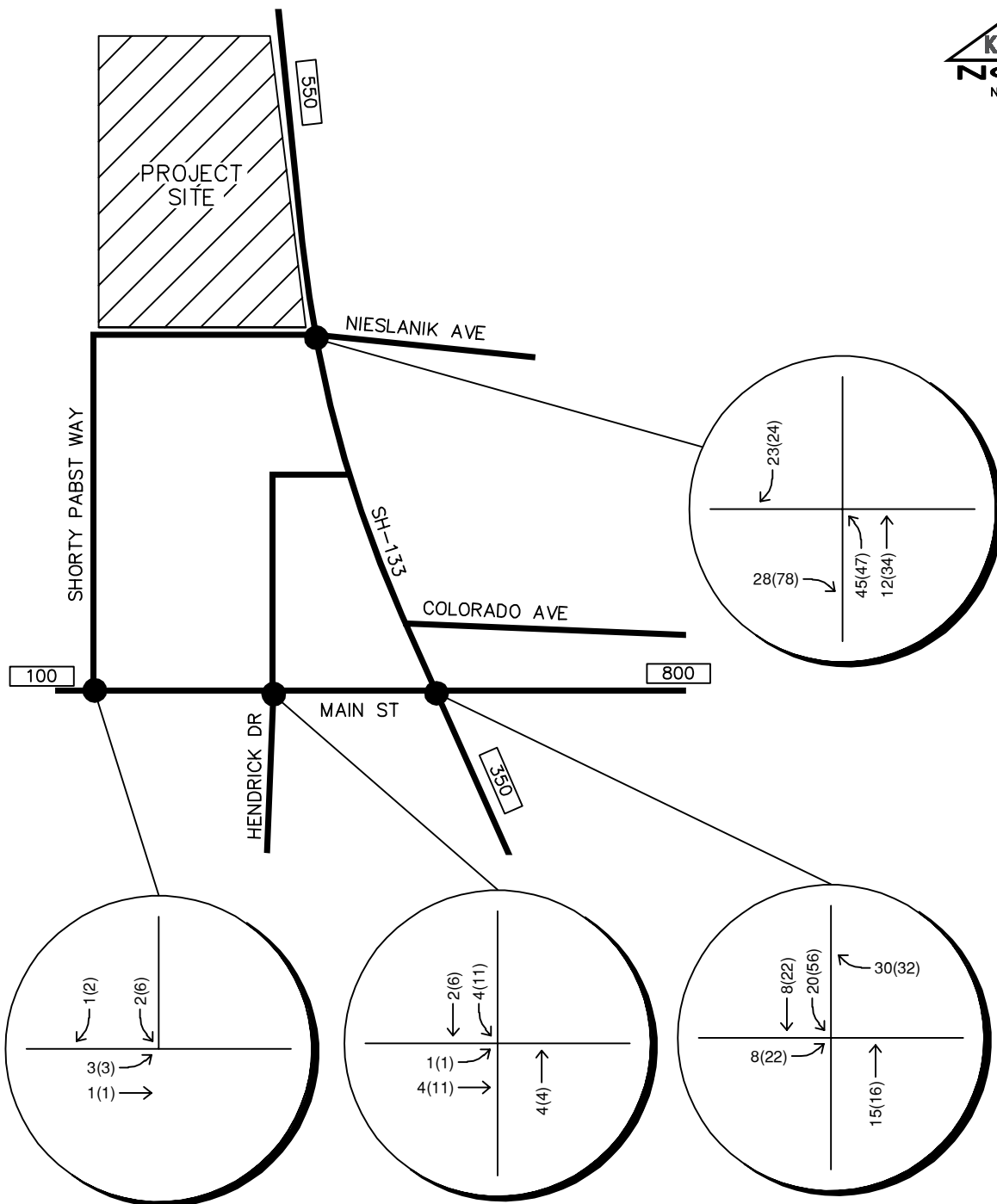
Traffic assignment was obtained by applying the project trip distribution to the estimated traffic generation of the development shown in **Table 1**. Project traffic assignment for the Carbondale Marketplace Lots 5A, 5B, and 5C project during the peak hours studied is shown in **Figure 8**.

Project traffic volumes were added to the background volumes to represent estimated traffic conditions for the short term 2022 horizon and long term 2040 horizon. These background plus project (total) traffic volumes are illustrated for the 2022 and 2040 horizon years in **Figures 9** and **10**, respectively.



CARBONDALE MARKETPLACE LOTS 5A/5B/5C
(NWC SH-133 AND NIESLANIK AVE)
PROJECT TRIP DISTRIBUTION

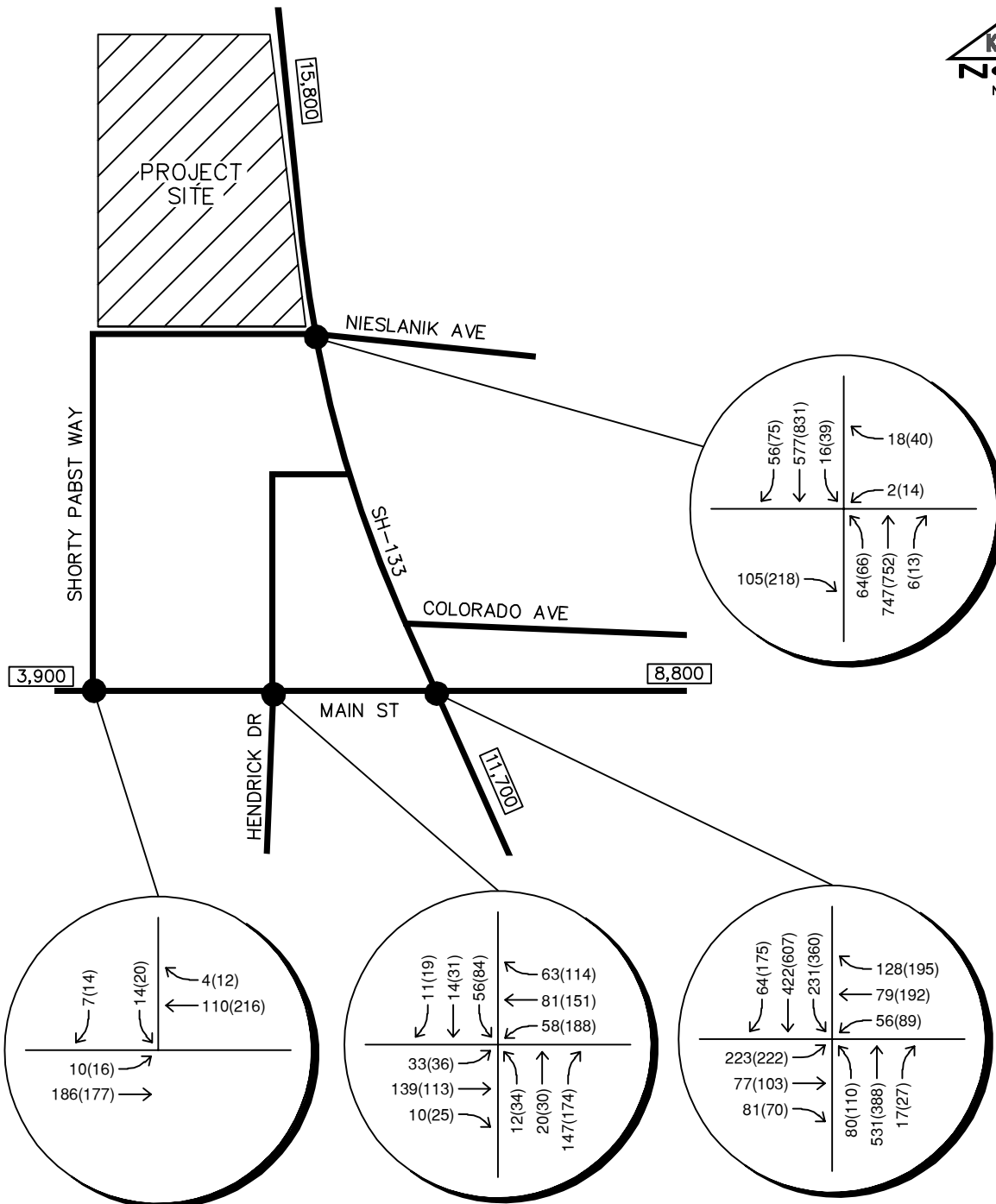
FIGURE 7



LEGEND	
●	Study Area Key Intersection
xxx(xxx)	Weekday AM(PM) Peak Hour Traffic Volumes
xx,x00	Estimated Daily Traffic Volume

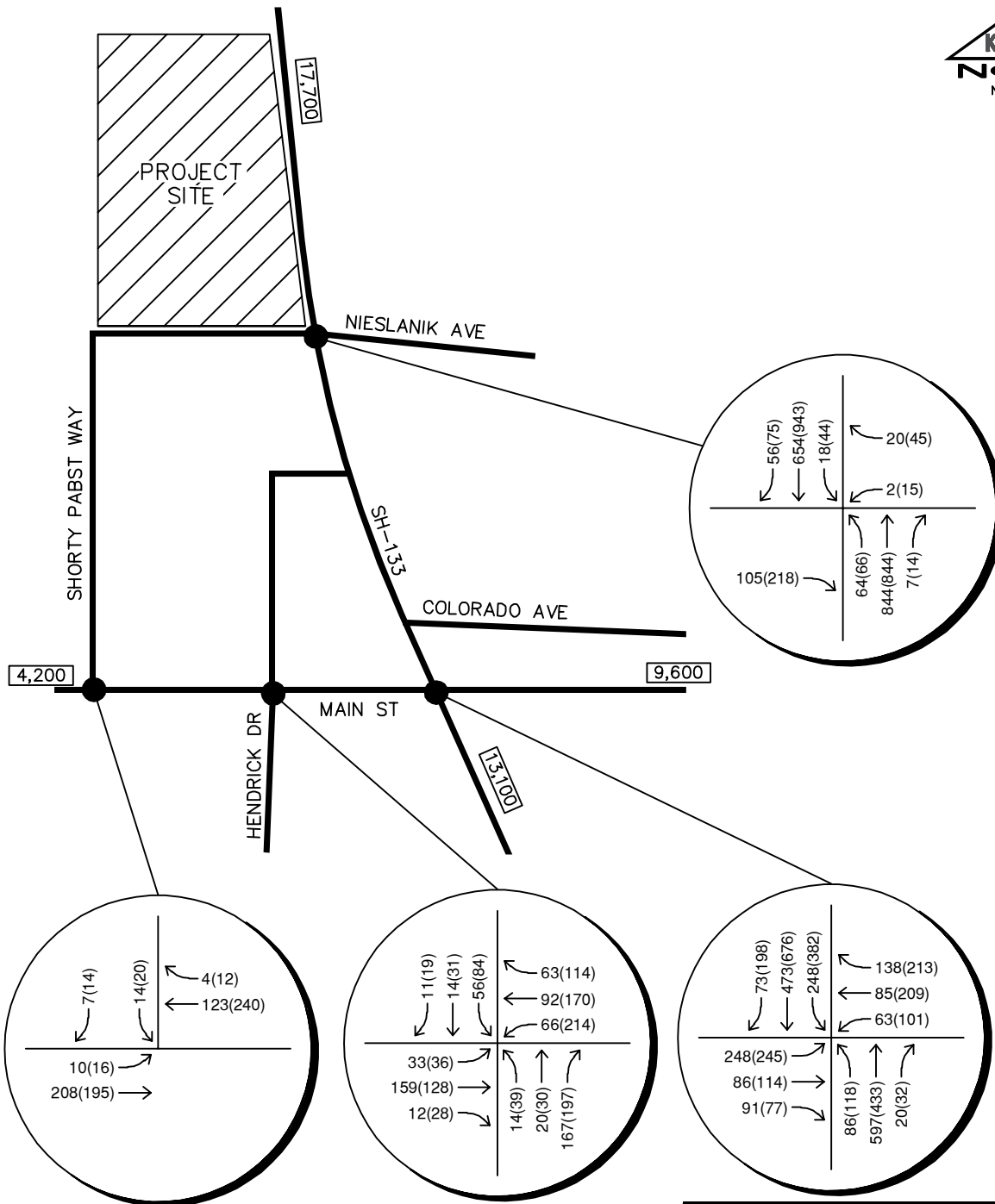
CARBONDALE MARKETPLACE LOTS 5A/5B/5C
 (NWC SH-133 AND NIESLANIK AVE)
 PROJECT TRAFFIC ASSIGNMENT

FIGURE 8



CARBONDALE MARKETPLACE LOTS 5A/5B/5C
(NWC SH-133 AND NIESLANIK AVE)
2022 TOTAL TRAFFIC VOLUMES

FIGURE 9



LEGEND

- Study Area Key Intersection
- xxx(xxx) 2040 Weekday AM(PM)
Peak Hour Traffic Volumes
- xx,x00 Estimated Daily Traffic Volume

CARBONDALE MARKETPLACE LOTS 5A/5B/5C
(NWC SH-133 AND NIESLANIK AVE)
2040 TOTAL TRAFFIC VOLUMES

FIGURE 10

5.0 TRAFFIC OPERATIONS ANALYSIS

Kimley-Horn's analysis of traffic operations in the site vicinity was conducted to determine potential capacity deficiencies in the 2022 and 2040 development horizons at the identified key intersections. The acknowledged source for determining overall capacity is the *Highway Capacity Manual*².

5.1 Analysis Methodology

Capacity analysis results are listed in terms of Level of Service (LOS). LOS is a qualitative term describing operating conditions a driver will experience while traveling on a particular street or highway during a specific time interval. It ranges from A (very little delay) to F (long delays and congestion). Typical standard traffic engineering practice recommends LOS D for overall intersections and LOS E for movements or approaches as the minimum thresholds for acceptable operations at intersections. **Table 2** shows the definition of level of service for signalized and unsignalized intersections.

Table 2 – Level of Service Definitions

Level of Service	Signalized Intersection Average Total Delay (sec/veh)	Unsignalized Intersection Average Total Delay (sec/veh)
A	≤ 10	≤ 10
B	> 10 and ≤ 20	> 10 and ≤ 15
C	> 20 and ≤ 35	> 15 and ≤ 25
D	> 35 and ≤ 55	> 25 and ≤ 35
E	> 55 and ≤ 80	> 35 and ≤ 50
F	> 80	> 50

___ Definitions provided from the Highway Capacity Manual, Sixth Edition, Transportation Research Board, 2016.

Study area intersections were analyzed based on average total delay analysis for signalized and unsignalized intersections. Under the unsignalized analysis, the level of service (LOS) for a two-way stop-controlled intersection is determined by the computed or measured control delay and is defined for each minor movement. Level of service for a two-way stop-controlled intersection is not defined for the intersection as a whole. Level of service for a signalized and all-way stop controlled intersection is defined for each approach and for the intersection.

² Transportation Research Board, *Highway Capacity Manual*, Sixth Edition, Washington DC, 2016.

5.2 Key Intersection Operational Analysis

Calculations for the level of service at the key intersections identified for study are provided in **Appendix D**. The existing and background traffic analyses are based on the lane geometry and intersection control shown in **Figure 2**. Synchro traffic analysis software was used to analyze the signalized/unsignalized key intersections and accesses for level of service. The Synchro Highway Capacity Manual (HCM) methodology reports were used to analyze intersection delay and level of service. Sidra Intersection 6 traffic analysis software was used to analyze the Main Street and SH-133 roundabout intersection for level of service.

Nieslanik Avenue and SH-133

The existing intersection of Nieslanik Avenue and SH-133 operates with stop control on the eastbound and westbound Nieslanik Avenue approaches. With or without the addition of project traffic in 2022, all movements at this intersection are expected to operate acceptably during both the morning and afternoon peak hours with exception of the westbound left turn from Nieslanik Avenue to southbound SH-133. This is a low volume, and it is understood that this left turn movement will be restricted sometime in the future.

By 2040, with or without the addition of project traffic, the eastbound right turn movement may operate with long delays and LOS F during the PM peak hour. However, a roundabout is proposed for construction north of the intersection at Industry Place and SH-133 which will reduce the turning movements at this intersection and alleviate some of the delay. Therefore, this anticipated to be mitigated by future construction of the Industry Place roundabout. **Table 3** provides the results of the level of service at this intersection.

Table 3 – Nieslanik Avenue and SH-133 LOS Results

Scenario	AM Peak Hour		PM Peak Hour	
	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
2020 Existing				
Westbound Approach	19.5	C	31.2	D
Southbound Left	9.8	A	9.6	A
2022 Background				
Northbound Left	9.6	A	10.7	B
Eastbound Right	12.7	B	30.3	D
Westbound Approach	18.3	C	40.7	E
Southbound Left	9.8	A	9.9	A
2022 Total Traffic				
Northbound Left	9.4	A	12.9	B
Eastbound Right	12.3	B	33.5	D
Westbound Approach	17.3	C	+	-
Southbound Left	9.7	A	9.7	A
2040 Background				
Northbound Left	9.6	A	15.3	C
Eastbound Right	13.0	B	40.8	E
Westbound Approach	17.9	C	101.5	F
Southbound Left	9.9	A	10.1	B
2040 Total Traffic				
Northbound Left	10.0	B	17.1	C
Eastbound Right	13.6	B	86.2	F
Westbound Right	18.9	C	2.8	A
Southbound Left	10.0	B	10.2	B

Main Street and Hendrick Drive

The existing intersection of Main Street and Hendrick Drive operates with stop control on the northbound Hendrick Drive approach. With the existing configuration, all movements at this intersection currently operate with LOS B or better during both the morning and afternoon peak hours. With completion of Carbondale Marketplace, the north leg of the Hendrick Drive and Main Street intersection will be constructed for project access. It is recommended that the project access approach (southbound) to Main Street be stop controlled. It is recommended that an R1-1 “STOP” sign be installed for this approach. With just the background traffic in 2022 to include Main Street Marketplace and City Market, the southbound approach may operate unacceptably at LOS F during the PM peak condition. Therefore, it is recommended that this intersection be considered for all-way stop control (AWSC). It is recommended that R1-1 “STOP” signs with R1-4 “ALL WAY” plaques be installed for all approaches. The new STOP signs along Main Street may need additional identification to improve driver awareness by

affixing orange flags to the top of the new STOP signs. With all-way stop control, all approaches operate at LOS C or better in 2022 and LOS D or better in 2040 in the morning and afternoon peak hours. **Table 4** provides the results of the level of service at this intersection.

Table 4 – Main Street and Hendrick Drive LOS Results

Scenario	AM Peak Hour		PM Peak Hour	
	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
2020 Existing				
Northbound Approach	10.7	B	14.9	B
Westbound Left	7.8	A	8.0	A
2022 Background				
Northbound Approach	11.8	B	29.2	D
Eastbound Left	7.6	A	8.0	A
Westbound Left	7.7	A	8.1	A
Southbound Approach	18.6	C	104.9	F
2022 Total Traffic (AWSC)				
Northbound Approach	9.6	A	16.9	C
Eastbound Approach	9.3	A	12.8	B
Westbound Approach	9.9	A	11.8	B
Southbound Approach	9.9	A	22.6	C
	9.2	A	11.8	B
2040 Background				
Northbound Approach	11.8	B	25.8	D
Eastbound Left	7.6	A	8.0	A
Westbound Left	7.7	A	8.0	A
Southbound Approach	19.1	C	98.0	F
2040 Total Traffic (AWSC)				
Northbound Approach	10.0	A	23.2	C
Eastbound Approach	9.7	A	15.0	B
Westbound Approach	10.3	B	13.1	B
Southbound Approach	10.3	B	34.3	D
	9.3	A	12.7	B

Main Street and SH-133

The existing intersection of Main Street and SH-133 is a roundabout intersection. The northbound and southbound approaches consist of two lanes, while the eastbound and westbound approaches consist of one lane. With the existing configuration, this intersection currently operates with LOS B or better during both the morning and afternoon peak hours. With the existing lane configurations and the addition of project traffic in 2022, this intersection is expected to continue to operate acceptably with LOS D or better during the morning and afternoon peak hours. By 2040, this intersection may need to be improved along the eastbound and westbound approaches to include separate right turn lanes. With this improvement in 2040, this intersection and all approaches are expected to operate acceptably during the peak hours. **Table 5** provides the results of the level of service at this intersection.

Table 5 – Main Street and SH-133 LOS Results

Scenario	AM Peak Hour		PM Peak Hour	
	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
2020 Existing	9.3	A	11.9	B
Eastbound Approach	13.0	B	16.2	C
Westbound Approach	10.2	B	13.7	B
Northbound Approach	9.2	A	8.1	A
Southbound Approach	7.1	A	11.4	B
2022 Background	11.8	B	20.5	C
Eastbound Approach	17.8	C	32.2	D
Westbound Approach	13.1	B	24.2	C
Northbound Approach	11.3	B	11.2	B
Southbound Approach	8.6	A	19.0	C
2022 Background Plus Project	12.7	A	26.1	D
Eastbound Approach	19.3	C	48.3	E
Westbound Approach	15.0	B	31.7	D
Northbound Approach	12.0	B	12.6	B
Southbound Approach	8.9	A	22.2	C
2040 Background	14.7	B	31.4	D
Eastbound Approach	25.1	D	61.0	F
Westbound Approach	16.2	C	39.0	E
Northbound Approach	13.6	B	13.1	B
Southbound Approach	9.6	A	26.7	D
2040 Background Plus Project#	12.8	B	27.3	D
Eastbound Approach	16.1	C	42.2	E
Westbound Approach	11.5	B	15.2	C
Northbound Approach	14.5	B	15.1	C
Southbound Approach	9.9	B	32.8	D

= Right Turn Lanes Included on Eastbound and Westbound Approaches

Main Street and Shorty Pabst Way

With completion of the project, a public north-south roadway (Shorty Pabst Way) will be constructed on the west side of the project. With construction of the roadway, it is recommended the intersection with Main Street be unsignalized with stop control on the southbound approach. An R1-1 "STOP" sign should be installed for this southbound approach. It is recommended that all approaches at this intersection consist of one shared movement lane. With the addition of project traffic throughout 2040, all movements at this intersection are anticipated to operate acceptably with LOS B during both the morning and afternoon peak hours. **Table 6** provides the results of the level of service at this intersection.

Table 6 – Main Street and Shorty Pabst Way (Western Access) LOS Results

Scenario	AM Peak Hour		PM Peak Hour	
	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
2022 Background Plus Project				
Eastbound Left	7.5	A	7.8	A
Southbound Approach	10.2	B	11.1	B
2040 Background				
Eastbound Approach	7.5	A	7.8	A
Southbound Approach	10.3	B	11.2	B
2040 Background Plus Project				
Eastbound Approach	7.5	A	7.8	A
Southbound Approach	10.4	B	11.5	B

5.3 State Highway Turn Bay Length Analysis

By the CDOT State Highway Access Code (SHAC) it is recommended that auxiliary turn lanes along SH-133 be constructed in accordance with the current code. The following discusses the requirements for turn lanes along SH-133 at Nieslanik Avenue with a speed limit of 35 miles per hour.

The State Highway Access Category Schedule categorizes the segment of SH-133 through the study area as NR-B: Non Rural Arterial. According to the State Highway Access Code for category NR-B roadways with a speed limit of less than or equal to 40 miles per hour, the following thresholds apply:

- A left turn lane with storage length plus taper is required for any access with a projected peak hour left ingress turning volume greater than 25 (vph).
- A right turn lane with storage length plus taper is required for any access with a projected peak hour right ingress turning volume greater than 50 (vph).

Based on future traffic projections, the auxiliary turn lane requirements were calculated per the Colorado State Highway Access Code for the Nieslanik Avenue access along SH-133. Through the access intersection, the state highway provides one lane of travel in each direction (northbound and southbound) with a 35 mile per hour posted speed limit. As such, turn lane requirements at the SH-133 and Nieslanik Avenue three-quarter movement access are as follows:

- A northbound left turn lane is warranted with the projected left turn being 66 vph and the threshold for requiring a left turn deceleration lane being 25 vph. This left turn lane exists today as a two-way left turn lane. Therefore, no modification to the northbound left turn lane is proposed for this project.
- A southbound right turn lane is warranted with the projected right turn volume being 75 vph and the threshold for requiring a right turn deceleration lane being 50 vph. To meet CDOT SHAC requirements, this southbound right turn lane would need to provide a length of 75 feet plus 120-foot taper. This right turn lane exists and has been constructed with a length of 80 feet plus 120-foot taper, therefore this meets CDOT SHAC requirements and no modification is needed.

5.4 Queueing Analysis

A queueing analysis was also conducted for the study area intersections and proposed project accesses. Turn lanes are recommended to be constructed/designated providing the recommended storage length based on the queueing analysis. Results were obtained from the 95th percentile queue lengths obtained from the Synchro and Sidra analysis. Results are shown in the following **Table 7** with calculations provided within the level of service operational sheets of **Appendix D** for the unsignalized intersections and **Appendix E** for the roundabout intersection.

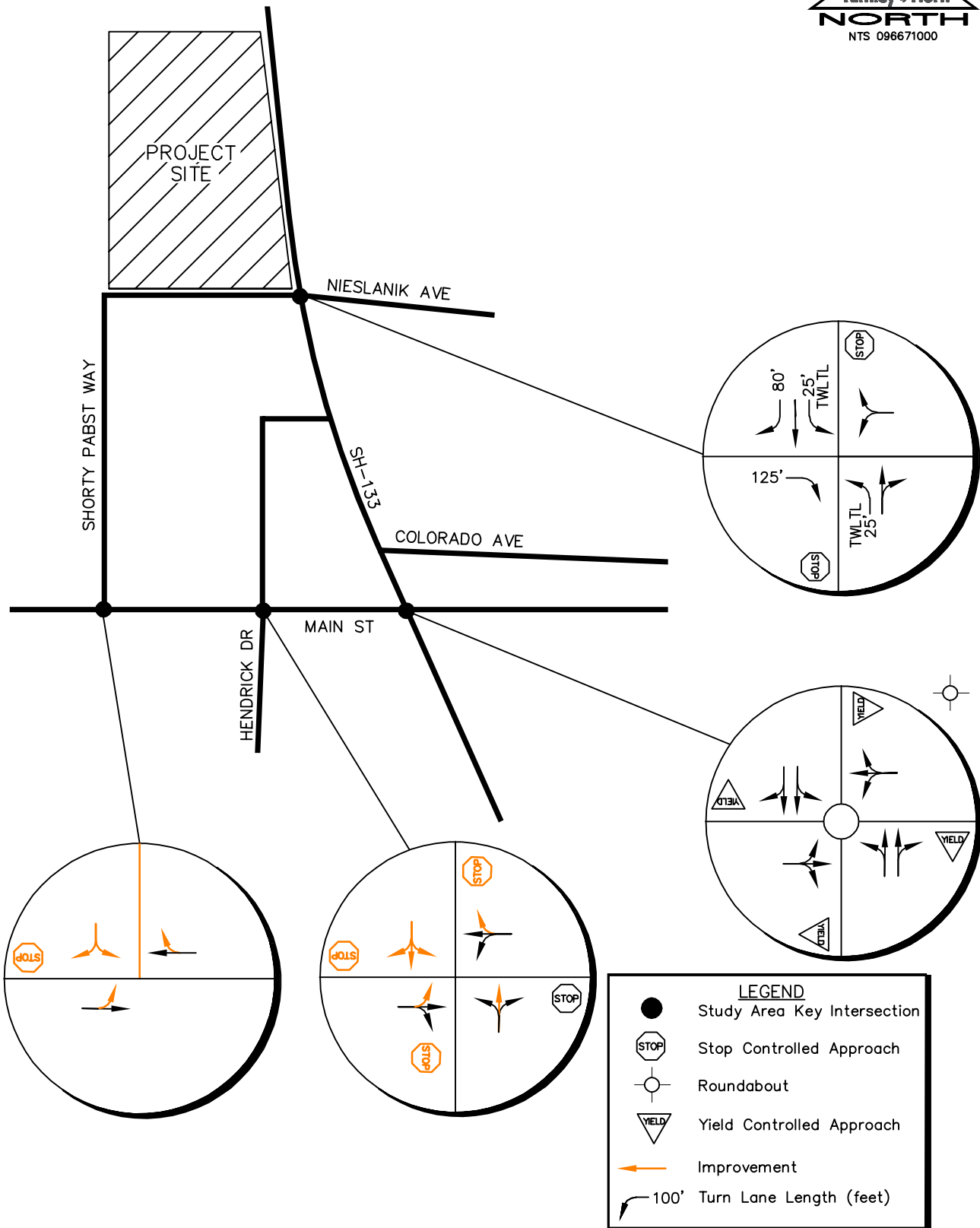
Table 7 – Queue Length Analysis Results

Intersection Turn Lane	Existing Turn Lane Length (feet)	2022 Calculated Queue (feet)	2022 Recommended Turn Lane Length (feet)	2040 Calculated Queue (feet)	2040 Recommended Turn Lane Length (feet)
SH-133 & Nieslanik Avenue					
Eastbound Right	C	125'	C	225'	C
Northbound Left	TWLTL	25'	TWLTL	25'	TWLTL
Southbound Left	TWLTL	25'	TWLTL	25'	TWLTL
Southbound Right	80' + 120' T	-	80' plus 120' T	-	80' plus 120' T
Main St & SH-133 Roundabout					
Eastbound Approach	C	250'	C	200' #	C
Westbound Approach	C	225'	C	75' #	C
Northbound Approach	C	75'	C	100'	C
Southbound Approach	C	275'	C	450'	C

C = Continuous Approach Lane; TWLTL = Two-Way Left-Turn Lane; # = With Separate EB and WB Right Turn Lanes

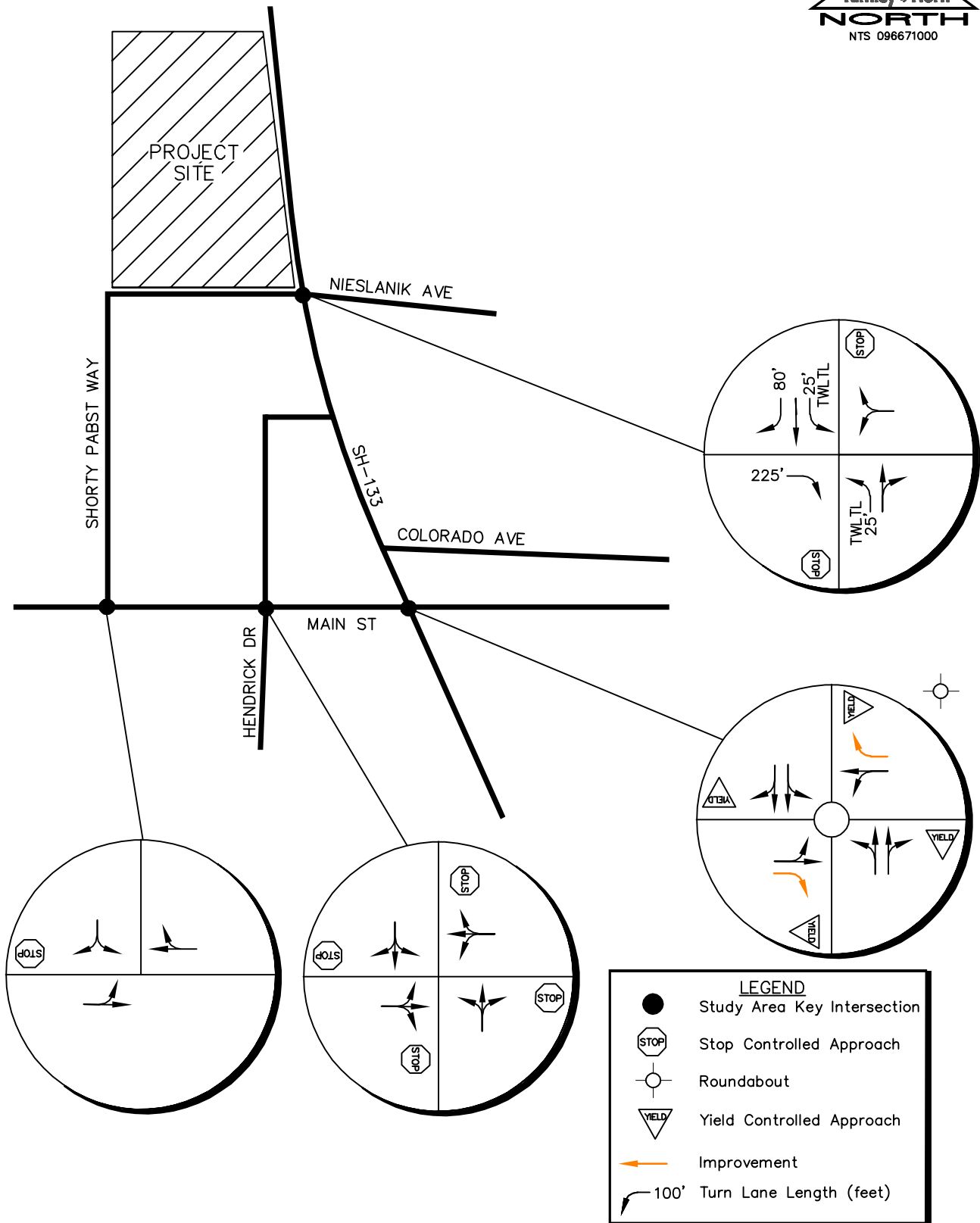
All queues fall within the existing storage lengths through the long term 2040 horizon. Of note, the southbound vehicle queues at the intersection of Main Street and Hendrick Drive are anticipated to be 150 feet (6 vehicles) under two-way stop control and 50 feet (1 vehicle) under all way stop control in 2040; therefore, on-street parking along Hendrick Drive should not be impacted and this proposed recommendation will improve queueing results as well.

Based on the results of the operational and queueing analysis, the recommended lane configurations and control for 2022 and 2040 are illustrated in **Figures 11** and **12**, respectively.



CARBONDALE MARKETPLACE LOTS 5A/5B/5C
 (NWC SH-133 AND NIESLANIK AVE)
 2022 RECOMMENDED
 LANE CONFIGURATION AND CONTROL

FIGURE 11



CARBONDALE MARKETPLACE LOTS 5A/5B/5C
 (NWC SH-133 AND NIESLANIK AVE)
 2040 RECOMMENDED
 LANE CONFIGURATION AND CONTROL

FIGURE 12

5.5 Sight Distance

Intersection sight distance requirements were determined for the proposed project access intersection of Main Street and Shorty Pabst Way. These requirements were identified from the American Association of State Highway and Transportation Officials (AASHTO), “A Policy on Geometric Design of Highways and Street”, 7th Edition 2018. Main Street presently has a posted speed limit of 25 miles per hour through this intersection. Therefore, as identified by AASHTO for roadways with 25 miles per hour, the sight distance required for a driver turning at a stop-controlled approach is 280 feet to the right (for a left turn movement) and 240 feet to the left (for a right turn movement). These distances are measured from a vertex point of the sight triangle 14.5 feet from the edge of the traveled way to a point in the middle of the approaching through lane. It is recommended that these sight triangles be clear of sight obstructions at the Main Street/Shorty Pabst Way intersection.

6.0 CONCLUSIONS AND RECOMMENDATIONS

Based on the analysis presented in this report, Kimley-Horn believes the proposed Carbondale Marketplace Lots 5A, 5B, and 5C will be successfully incorporated into the existing and future roadway network. The proposed project development and expected traffic volumes resulted in the following recommendations/conclusions:

- The threshold for requiring an access permit along CDOT roadways occurs when project traffic is anticipated to increase the existing access traffic volumes by more than 20 percent. Based on traffic projections, the addition of project traffic on the west leg of Main Street at the SH-133 roundabout is not anticipated to increase existing access traffic volumes by more than 20 percent; therefore, it is believed that an access permit will not be required by CDOT for this intersection in association with this project. However, based on traffic projections, the addition of project traffic on the Nieslanik Avenue access along SH-133 is anticipated to increase traffic volumes by more than 20 percent over what was initially planned; therefore, it is believed that an access permit will be required by CDOT for this intersection in association with this project.
- With completion of the project, it is believed that three accesses will be used for traffic generated by Carbondale Marketplace Lots 5A, 5B, and 5C. Two of these accesses are located along Main Street that will allow full turning movements and one is located on SH-133 at Nieslanik Avenue that provides three-quarter turning movements. The western access (Shorty Pabst Way) will be located approximately 800 feet west of the Main Street/SH-133 roundabout. Hendrick Drive, where the east access aligns will be the public right-of-way extension of Hendrick Drive, is located approximately 375 feet west of the roundabout edge. This roadway extension connects with SH-133 as well which provides access to Lots 1, 2, 3, and 4. The SH-133 and Hendrick Drive intersection allows three-quarter movements. The three-quarter movement access on SH-133 located at the intersection of Nieslanik Avenue is located approximately 1,000 feet north of the edge of the Main Street and SH-133 roundabout.

- With the construction of the north-south public roadway, Shorty Pabst Way along the west side of the project, it is recommended the intersection with Main Street be unsignalized with stop control on the southbound approach. It is recommended that an R1-1 “STOP” sign be installed for this approach. Single shared movement lanes are recommended on all three approaches at this intersection. Sight distance required for a driver turning from the southbound stop-controlled approach is 280 feet to the right (for a left turn movement) and 240 feet to the left (for a right turn movement). These distances are measured from a vertex point of the sight triangle 14.5 feet from the edge of the traveled way to a point in the middle of the approaching through lane.
- It is recommended that a north leg be constructed for the public right of way extension of Hendrick Drive at the Main Street and Hendrick Drive intersection. It is recommended that this intersection operate with All-Way Stop Control with R1-1 “STOP” signs and R1-4 “ALL WAY” plaques installed for each approach. Based on the operational analysis, one shared movement lane is anticipated to be sufficient to accommodate traffic in all directions.
- By 2040, the eastbound and westbound approaches of the Main Street and SH-133 roundabout may need to include separate right turn lanes. Traffic volumes should be monitored in the future at this intersection to determine if and when this improvement is necessary.
- All on-site and off-site signing and striping improvements should be incorporated into the Civil Drawings, and conform to Town of Carbondale and CDOT standards, as well as the Manual on Uniform Traffic Control Devices – 2009 Edition (MUTCD).

APPENDICES

APPENDIX A

Intersection Count Sheets



Morrison, CO 80465

Carbondale, CO
City Market
AM Peak
Nieslanik Ave and SH-133

File Name : NieslanikSH133AM
Site Code : IPO 100
Start Date : 6/2/2015
Page No : 1

Groups Printed- Unshifted

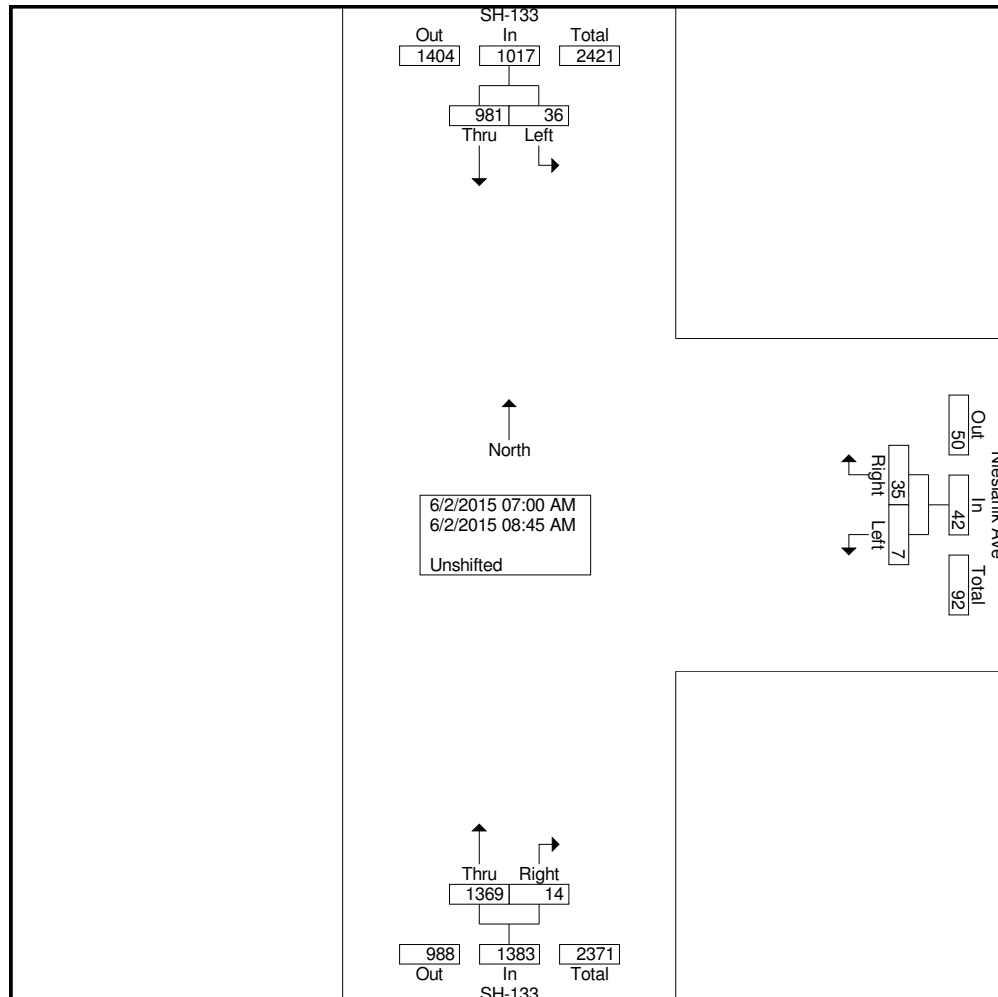
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Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
07:00 AM	1	5	6	158	3	161	4	106	110	277
07:15 AM	1	6	7	160	3	163	4	115	119	289
07:30 AM	0	7	7	159	1	160	3	140	143	310
07:45 AM	0	2	2	169	1	170	3	169	172	344
Total	2	20	22	646	8	654	14	530	544	1220
08:00 AM	1	2	3	204	1	205	5	128	133	341
08:15 AM	2	4	6	179	0	179	4	93	97	282
08:30 AM	0	5	5	165	1	166	8	107	115	286
08:45 AM	2	4	6	175	4	179	5	123	128	313
Total	5	15	20	723	6	729	22	451	473	1222
Grand Total	7	35	42	1369	14	1383	36	981	1017	2442
Apprch %	16.7	83.3		99	1		3.5	96.5		
Total %	0.3	1.4	1.7	56.1	0.6	56.6	1.5	40.2	41.6	



Morrison, CO 80465

Carbondale, CO
City Market
AM Peak
Nieslanik Ave and SH-133

File Name : NieslanikSH133AM
Site Code : IPO 100
Start Date : 6/2/2015
Page No : 2



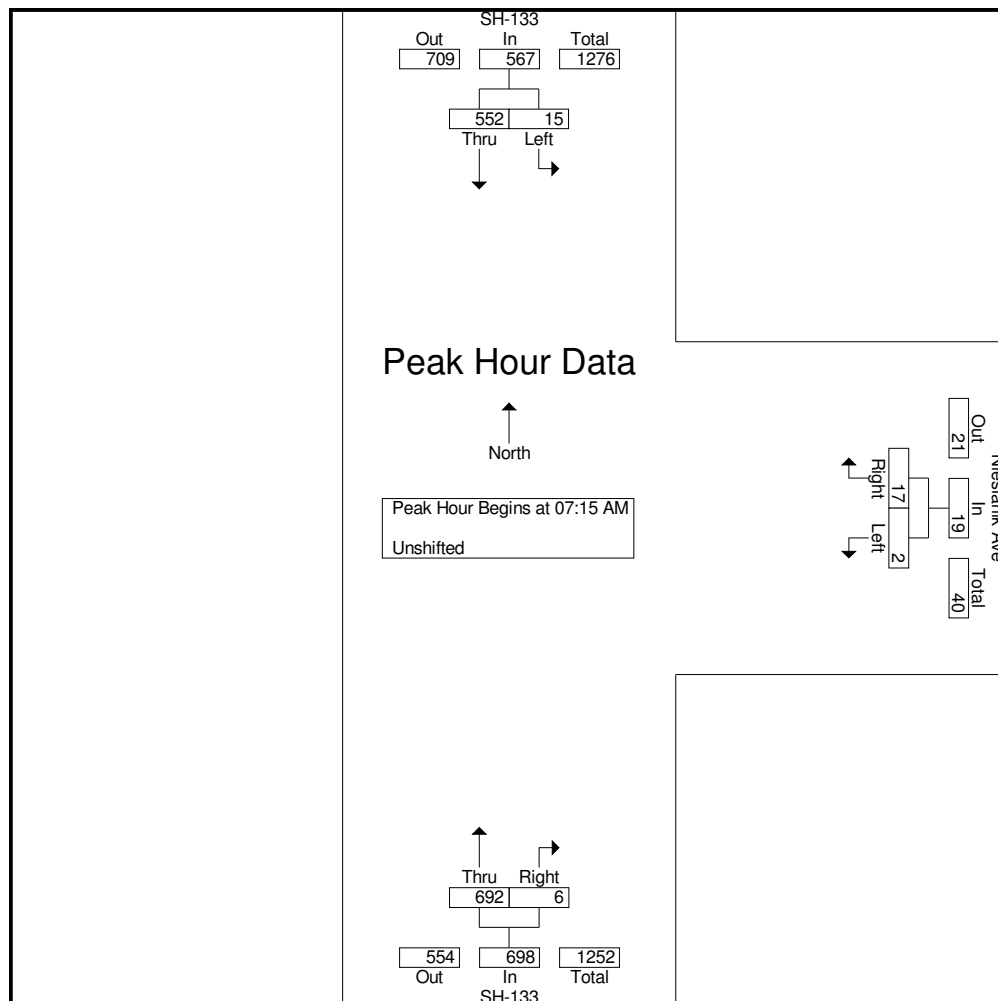


Morrison, CO 80465

Carbondale, CO
City Market
AM Peak
Nieslanik Ave and SH-133

File Name : NieslanikSH133AM
Site Code : IPO 100
Start Date : 6/2/2015
Page No : 3

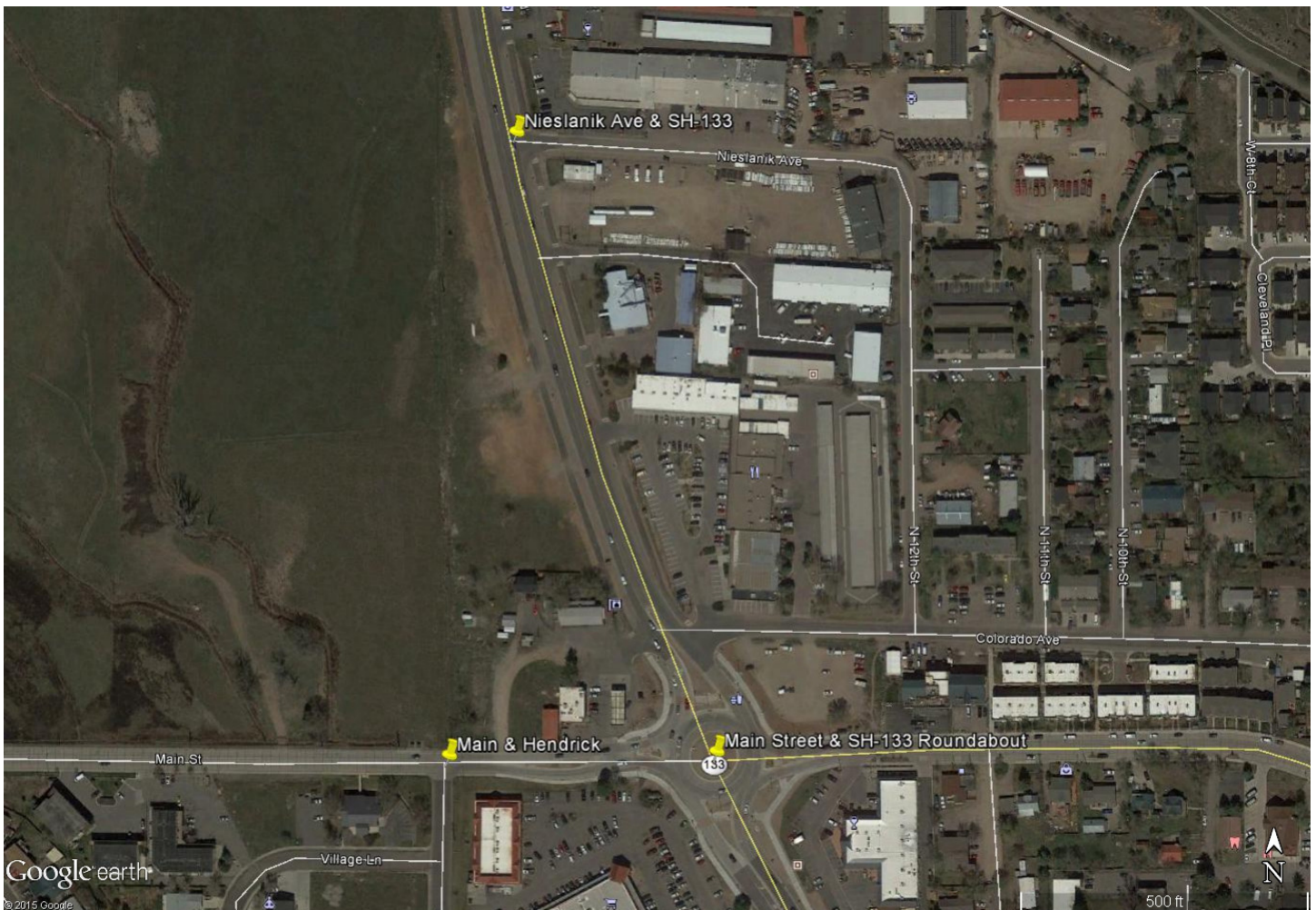
	Nieslanik Ave Westbound			SH-133 Northbound			SH-133 Southbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:15 AM										
07:15 AM	1	6	7	160	3	163	4	115	119	289
07:30 AM	0	7	7	159	1	160	3	140	143	310
07:45 AM	0	2	2	169	1	170	3	169	172	344
08:00 AM	1	2	3	204	1	205	5	128	133	341
Total Volume	2	17	19	692	6	698	15	552	567	1284
% App. Total	10.5	89.5		99.1	0.9		2.6	97.4		
PHF	.500	.607	.679	.848	.500	.851	.750	.817	.824	.933



Carbondale, CO
City Market
AM Peak
Nieslanik Ave and SH-133

File Name : NieslanikSH133AM
Site Code : IPO 100
Start Date : 6/2/2015
Page No : 4

Image 1





Morrison, CO 80465

Carbondale, CO
City Market
PM Peak
Nieslanik Ave and SH-133

File Name : NieslanikSH133PM
Site Code : IPO 100
Start Date : 6/2/2015
Page No : 1

Groups Printed- Unshifted

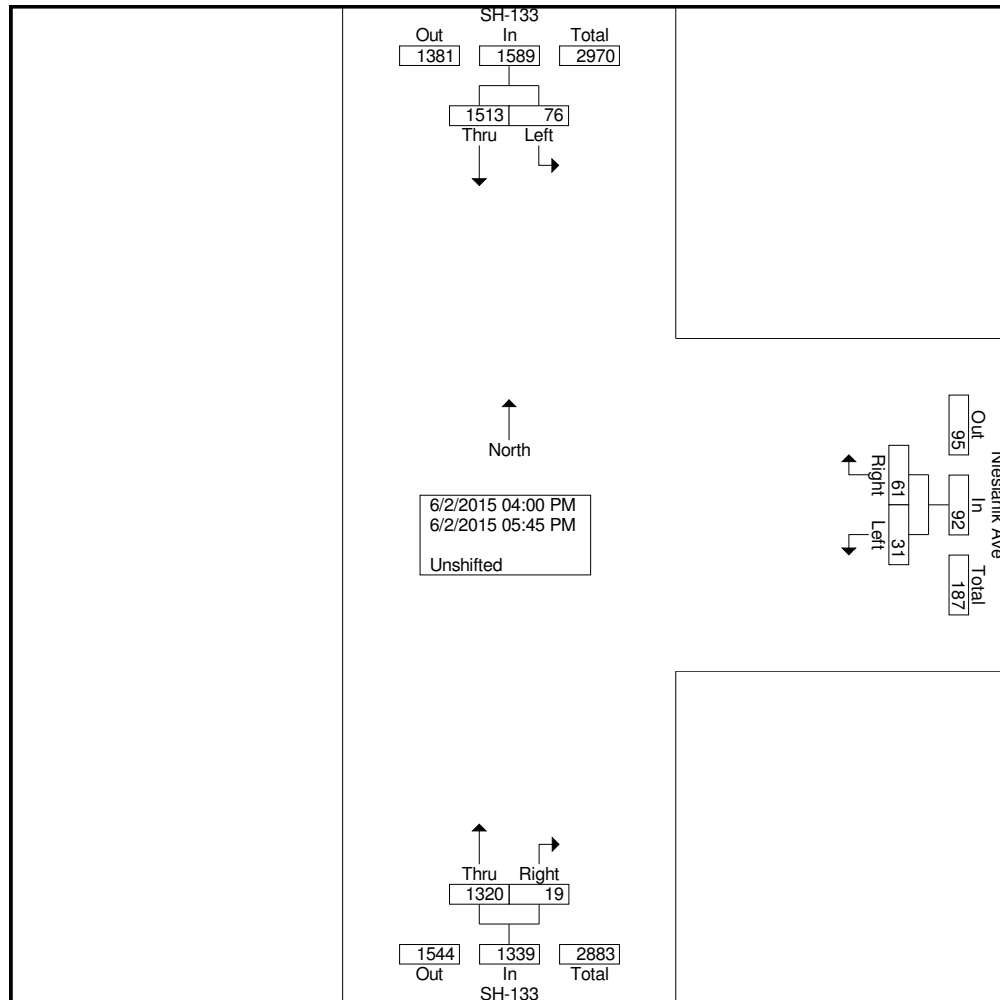
	Nieslanik Ave Westbound			SH-133 Northbound			SH-133 Southbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
04:00 PM	5	10	15	168	1	169	22	181	203	387
04:15 PM	3	2	5	171	2	173	8	175	183	361
04:30 PM	6	9	15	161	2	163	2	191	193	371
04:45 PM	4	2	6	166	2	168	7	170	177	351
Total	18	23	41	666	7	673	39	717	756	1470
05:00 PM	3	10	13	169	1	170	13	214	227	410
05:15 PM	3	5	8	172	6	178	10	205	215	401
05:30 PM	3	11	14	132	5	137	6	207	213	364
05:45 PM	4	12	16	181	0	181	8	170	178	375
Total	13	38	51	654	12	666	37	796	833	1550
Grand Total	31	61	92	1320	19	1339	76	1513	1589	3020
Apprch %	33.7	66.3		98.6	1.4		4.8	95.2		
Total %	1	2	3	43.7	0.6	44.3	2.5	50.1	52.6	



Morrison, CO 80465

Carbondale, CO
City Market
PM Peak
Nieslanik Ave and SH-133

File Name : NieslanikSH133PM
Site Code : IPO 100
Start Date : 6/2/2015
Page No : 2



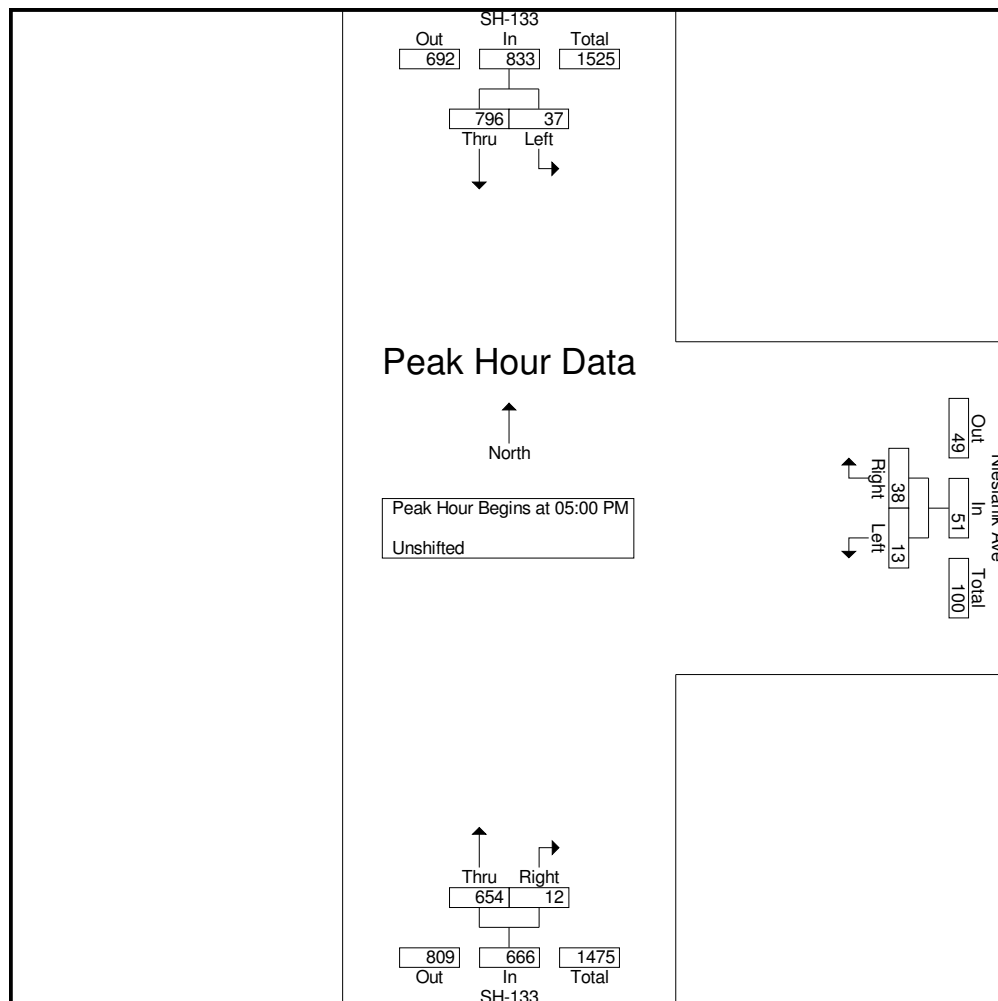


Morrison, CO 80465

Carbondale, CO
City Market
PM Peak
Nieslanik Ave and SH-133

File Name : NieslanikSH133PM
Site Code : IPO 100
Start Date : 6/2/2015
Page No : 3

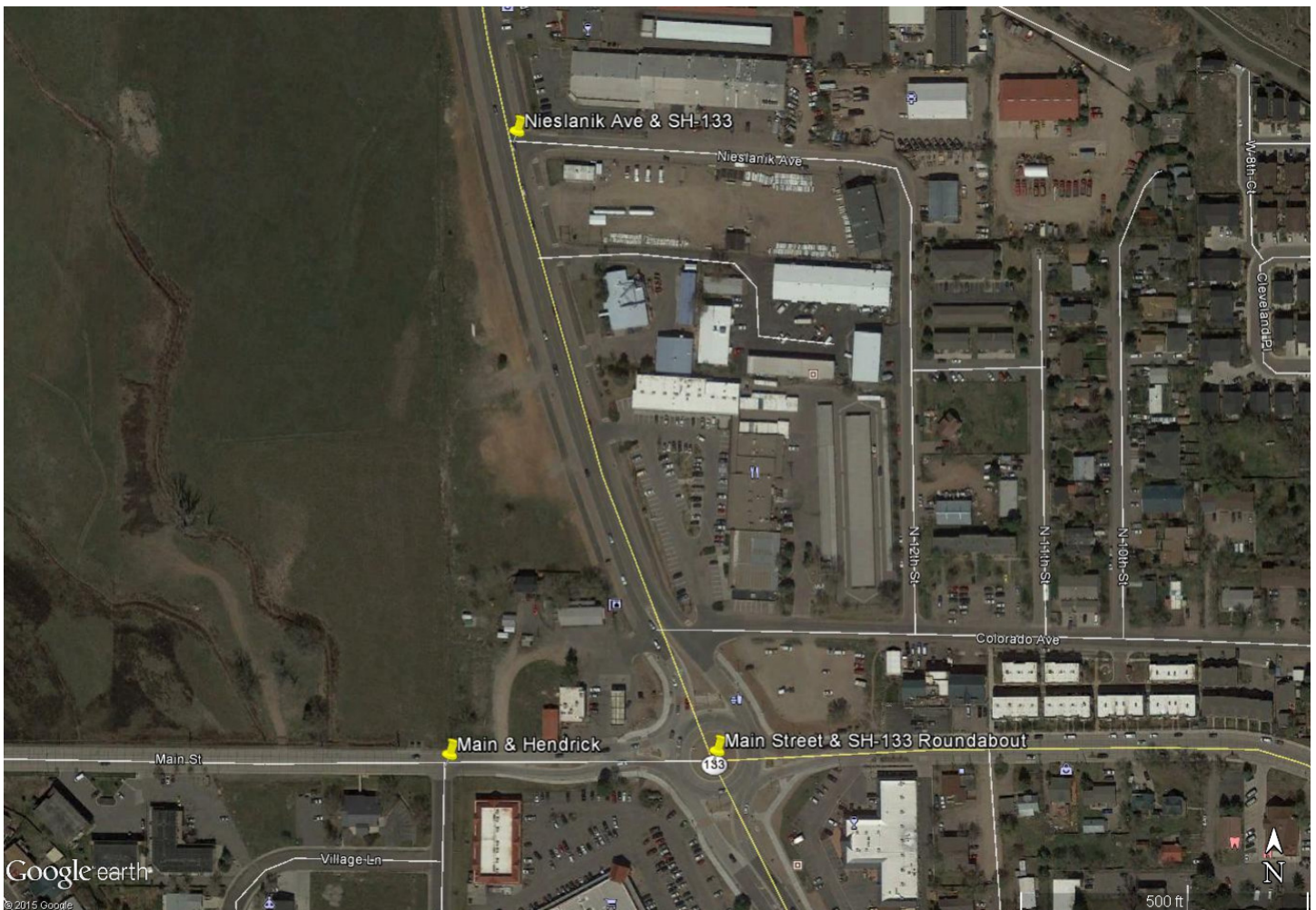
	Nieslanik Ave Westbound			SH-133 Northbound			SH-133 Southbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 05:00 PM										
05:00 PM	3	10	13	169	1	170	13	214	227	410
05:15 PM	3	5	8	172	6	178	10	205	215	401
05:30 PM	3	11	14	132	5	137	6	207	213	364
05:45 PM	4	12	16	181	0	181	8	170	178	375
Total Volume	13	38	51	654	12	666	37	796	833	1550
% App. Total	25.5	74.5		98.2	1.8		4.4	95.6		
PHF	.813	.792	.797	.903	.500	.920	.712	.930	.917	.945



Carbondale, CO
City Market
PM Peak
Nieslanik Ave and SH-133

File Name : NieslanikSH133PM
Site Code : IPO 100
Start Date : 6/2/2015
Page No : 4

Image 1





Morrison, CO 80465

Carbondale, CO
Main Street Marketplace
AM Peak
Main Street and Hendrick Dr

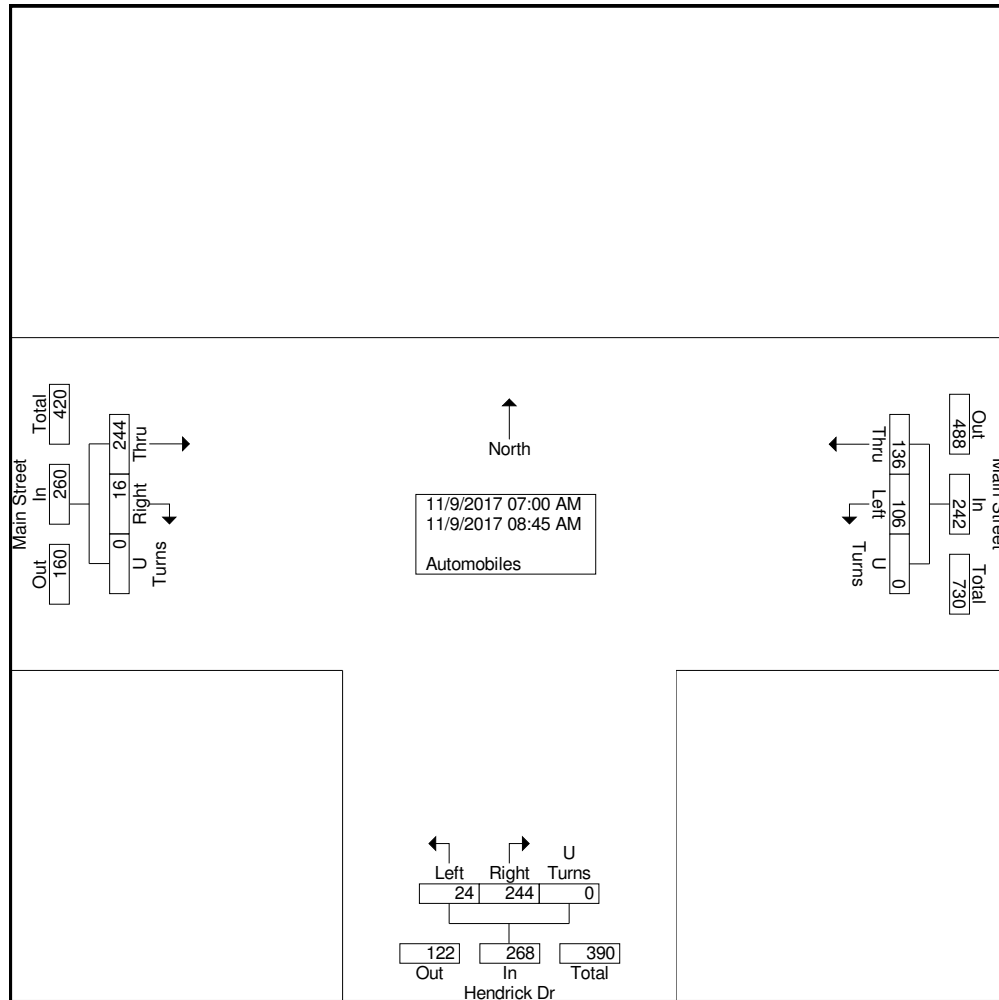
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Site Code : IPO 284
Start Date : 11/9/2017
Page No : 1

Groups Printed- Automobiles

Start Time	Main Street Eastbound				Main Street Westbound				Hendrick Dr Northbound				Int. Total
	Thru	Right	U Turns	App. Total	Left	Thru	U Turns	App. Total	Left	Right	U Turns	App. Total	
07:00 AM	21	1	0	22	7	5	0	12	0	24	0	24	58
07:15 AM	31	0	0	31	11	10	0	21	2	23	0	25	77
07:30 AM	40	1	0	41	8	11	0	19	4	33	0	37	97
07:45 AM	44	1	0	45	12	25	0	37	4	34	0	38	120
Total	136	3	0	139	38	51	0	89	10	114	0	124	352
08:00 AM	41	6	0	47	18	23	0	41	1	38	0	39	127
08:15 AM	21	2	0	23	18	20	0	38	3	37	0	40	101
08:30 AM	25	1	0	26	16	16	0	32	6	20	0	26	84
08:45 AM	21	4	0	25	16	26	0	42	4	35	0	39	106
Total	108	13	0	121	68	85	0	153	14	130	0	144	418
Grand Total	244	16	0	260	106	136	0	242	24	244	0	268	770
Apprch %	93.8	6.2	0		43.8	56.2	0		9	91	0		
Total %	31.7	2.1	0	33.8	13.8	17.7	0	31.4	3.1	31.7	0	34.8	

Carbondale, CO
Main Street Marketplace
AM Peak
Main Street and Hendrick Dr

File Name : Main and Hendrick AM
Site Code : IPO 284
Start Date : 11/9/2017
Page No : 2



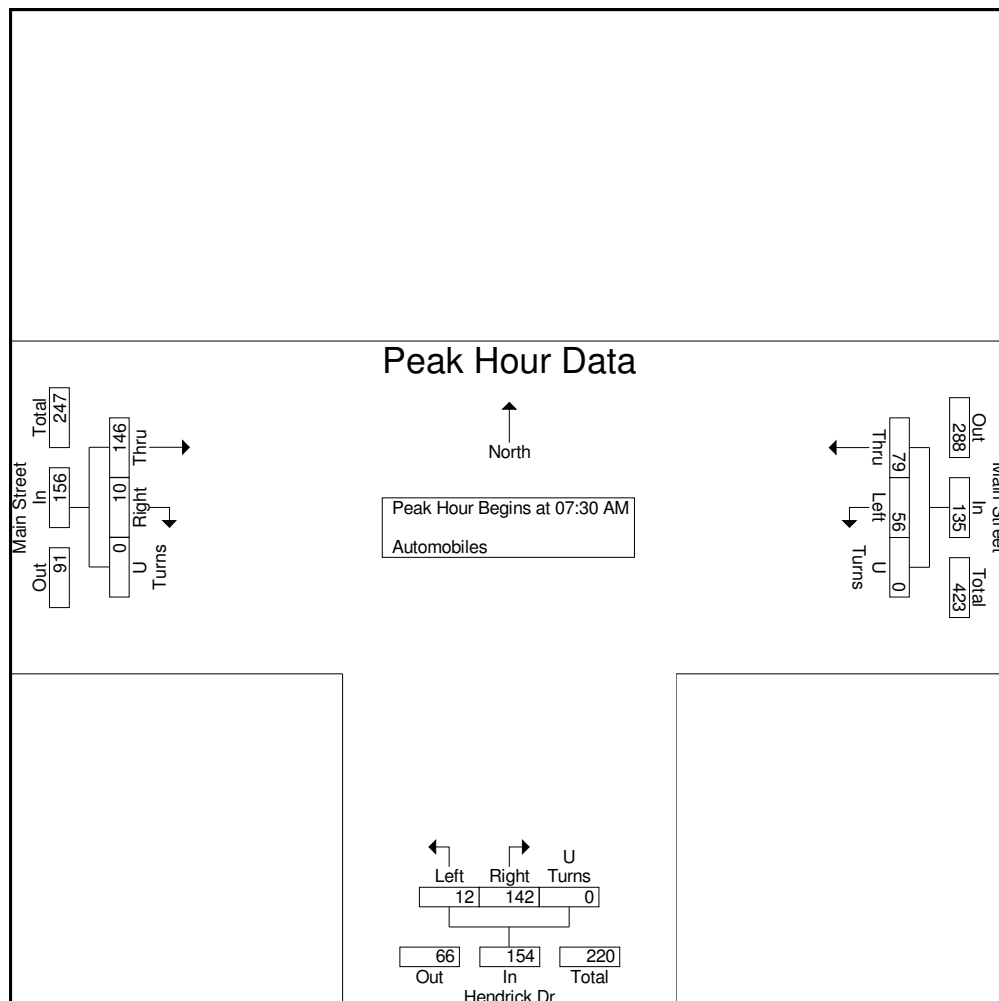


Morrison, CO 80465

Carbondale, CO
Main Street Marketplace
AM Peak
Main Street and Hendrick Dr

File Name : Main and Hendrick AM
Site Code : IPO 284
Start Date : 11/9/2017
Page No : 3

	Main Street Eastbound				Main Street Westbound				Hendrick Dr Northbound				
Start Time	Thru	Right	U Turns	App. Total	Left	Thru	U Turns	App. Total	Left	Right	U Turns	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:30 AM													
07:30 AM	40	1	0	41	8	11	0	19	4	33	0	37	97
07:45 AM	44	1	0	45	12	25	0	37	4	34	0	38	120
08:00 AM	41	6	0	47	18	23	0	41	1	38	0	39	127
08:15 AM	21	2	0	23	18	20	0	38	3	37	0	40	101
Total Volume	146	10	0	156	56	79	0	135	12	142	0	154	445
% App. Total	93.6	6.4	0		41.5	58.5	0		7.8	92.2	0		
PHF	.830	.417	.000	.830	.778	.790	.000	.823	.750	.934	.000	.963	.876





Morrison, CO 80465

Carbondale, CO
Main Street Marketplace
PM Peak
Main Street and Hendrick Dr

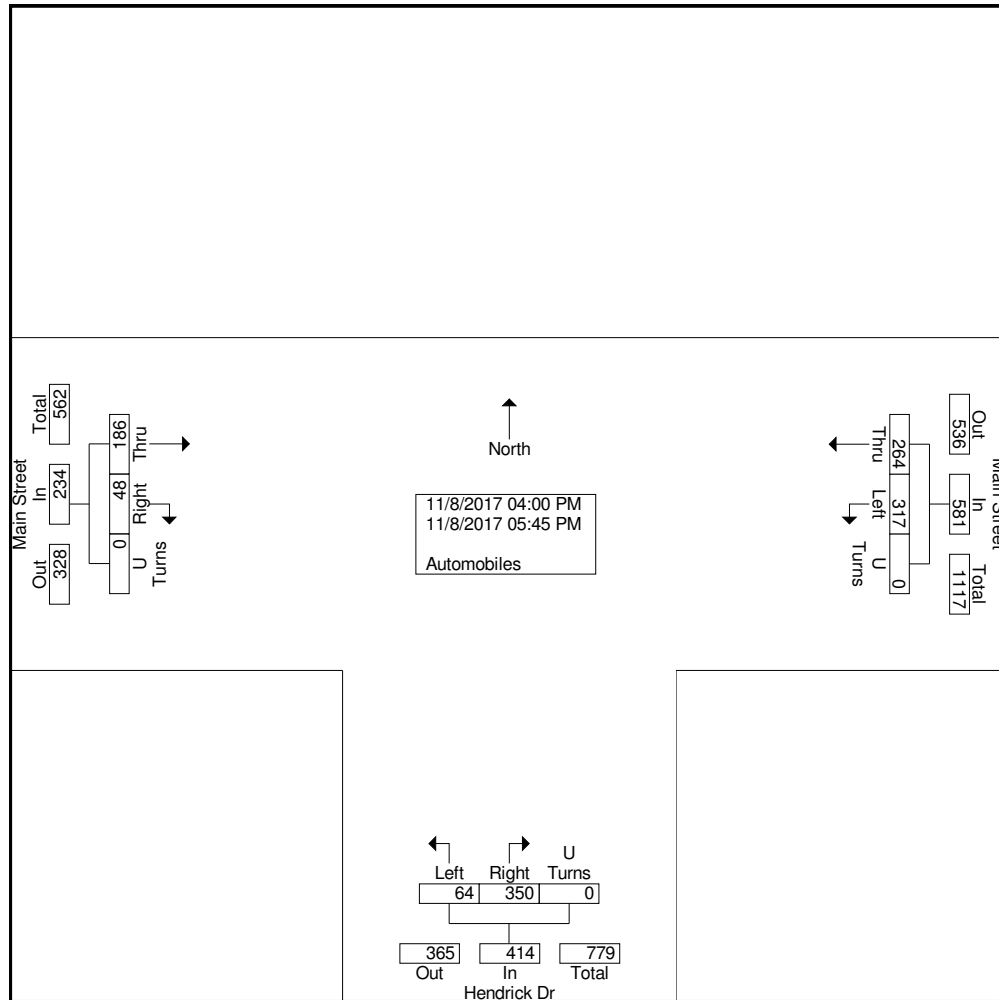
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Site Code : IPO 284
Start Date : 11/8/2017
Page No : 1

Groups Printed- Automobiles

Start Time	Main Street Eastbound				Main Street Westbound				Hendrick Dr Northbound				Int. Total
	Thru	Right	U Turns	App. Total	Left	Thru	U Turns	App. Total	Left	Right	U Turns	App. Total	
04:00 PM	19	5	0	24	34	30	0	64	6	40	0	46	134
04:15 PM	15	6	0	21	33	31	0	64	8	46	0	54	139
04:30 PM	25	8	0	33	33	35	0	68	8	51	0	59	160
04:45 PM	17	5	0	22	35	32	0	67	9	45	0	54	143
Total	76	24	0	100	135	128	0	263	31	182	0	213	576
05:00 PM	27	7	0	34	43	29	0	72	16	44	0	60	166
05:15 PM	31	7	0	38	43	39	0	82	9	44	0	53	173
05:30 PM	24	6	0	30	53	37	0	90	5	42	0	47	167
05:45 PM	28	4	0	32	43	31	0	74	3	38	0	41	147
Total	110	24	0	134	182	136	0	318	33	168	0	201	653
Grand Total	186	48	0	234	317	264	0	581	64	350	0	414	1229
Apprch %	79.5	20.5	0		54.6	45.4	0		15.5	84.5	0		
Total %	15.1	3.9	0	19	25.8	21.5	0	47.3	5.2	28.5	0	33.7	

Carbondale, CO
Main Street Marketplace
PM Peak
Main Street and Hendrick Dr

File Name : Main and Hendrick PM
Site Code : IPO 284
Start Date : 11/8/2017
Page No : 2





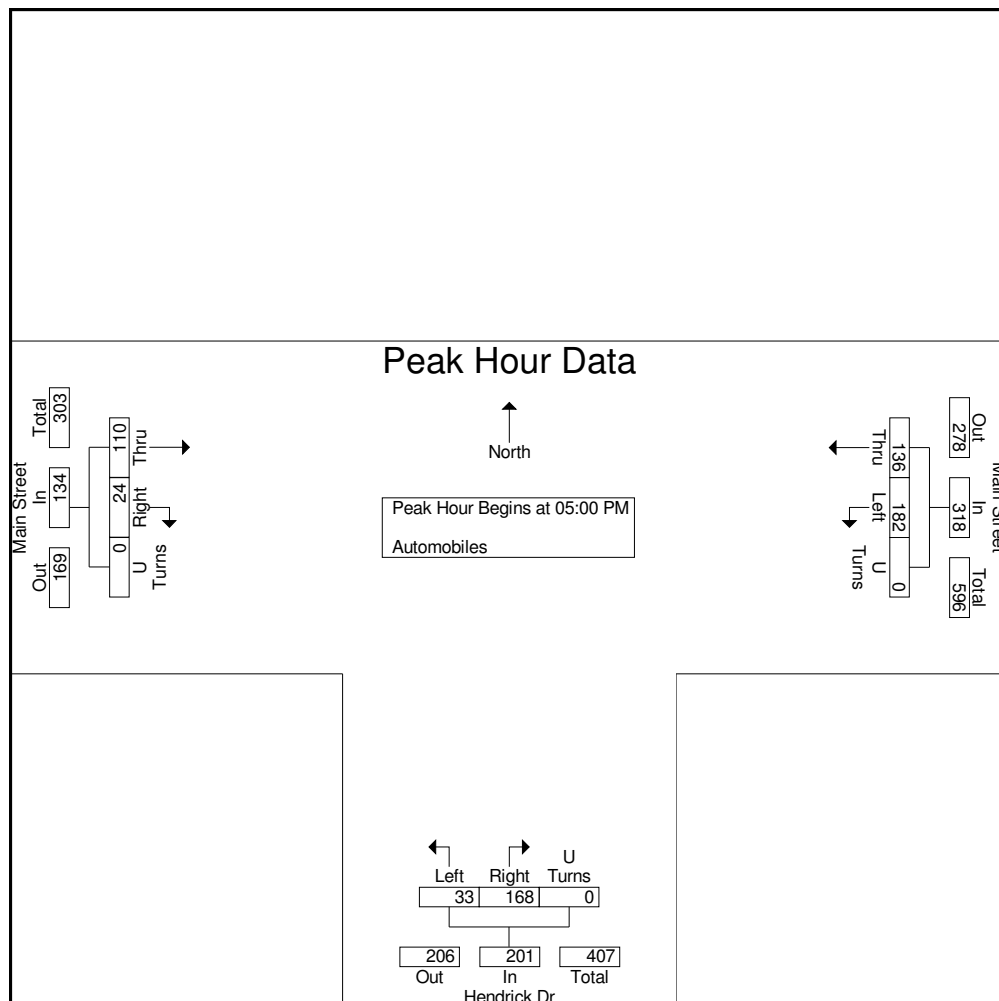
Ridgeview Data
Collection

Morrison, CO 80465

Carbondale, CO
Main Street Marketplace
PM Peak
Main Street and Hendrick Dr

File Name : Main and Hendrick PM
Site Code : IPO 284
Start Date : 11/8/2017
Page No : 3

	Main Street Eastbound				Main Street Westbound				Hendrick Dr Northbound				
Start Time	Thru	Right	U Turns	App. Total	Left	Thru	U Turns	App. Total	Left	Right	U Turns	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 05:00 PM													
05:00 PM	27	7	0	34	43	29	0	72	16	44	0	60	166
05:15 PM	31	7	0	38	43	39	0	82	9	44	0	53	173
05:30 PM	24	6	0	30	53	37	0	90	5	42	0	47	167
05:45 PM	28	4	0	32	43	31	0	74	3	38	0	41	147
Total Volume	110	24	0	134	182	136	0	318	33	168	0	201	653
% App. Total	82.1	17.9	0		57.2	42.8	0		16.4	83.6	0		
PHF	.887	.857	.000	.882	.858	.872	.000	.883	.516	.955	.000	.838	.944





Morrison, CO 80465

Carbondale, CO
Main Street Marketplace
AM Peak
Main Street and SH-133

File Name : Main and SH 133 AM
Site Code : IPO 284
Start Date : 11/9/2017
Page No : 1

Groups Printed- Automobiles

Start Time	Main Street Eastbound					Main Street Westbound					SH-133 Northbound					SH-133 Southbound					Int. Total
	Left	Thru	Right	U Turns	App. Total	Left	Thru	Right	U Turns	App. Total	Left	Thru	Right	U Turns	App. Total	Left	Thru	Right	U Turns	App. Total	
07:00 AM	36	12	6	0	54	5	4	9	0	18	6	81	3	1	91	9	43	9	1	62	225
07:15 AM	38	15	12	0	65	1	6	14	0	21	8	96	2	0	106	17	57	13	3	90	282
07:30 AM	48	12	15	0	75	11	11	11	0	33	9	117	0	0	126	24	105	10	1	140	374
07:45 AM	47	17	27	0	91	24	12	15	0	51	13	127	5	0	145	30	124	15	1	170	457
Total	169	56	60	0	285	41	33	49	0	123	36	421	10	1	468	80	329	47	6	462	1338
08:00 AM	50	17	18	0	85	17	10	30	0	57	17	137	8	0	162	41	90	16	0	147	451
08:15 AM	41	15	12	0	68	2	15	17	0	34	8	95	9	0	112	33	50	20	0	103	317
08:30 AM	29	13	8	0	50	5	4	14	1	24	12	75	3	0	90	35	51	19	8	113	277
08:45 AM	34	20	6	0	60	6	15	29	0	50	13	73	5	0	91	30	57	17	2	106	307
Total	154	65	44	0	263	30	44	90	1	165	50	380	25	0	455	139	248	72	10	469	1352
Grand Total	323	121	104	0	548	71	77	139	1	288	86	801	35	1	923	219	577	119	16	931	2690
Apprch %	58.9	22.1	19	0		24.7	26.7	48.3	0.3		9.3	86.8	3.8	0.1		23.5	62	12.8	1.7		
Total %	12	4.5	3.9	0	20.4	2.6	2.9	5.2	0	10.7	3.2	29.8	1.3	0	34.3	8.1	21.4	4.4	0.6	34.6	

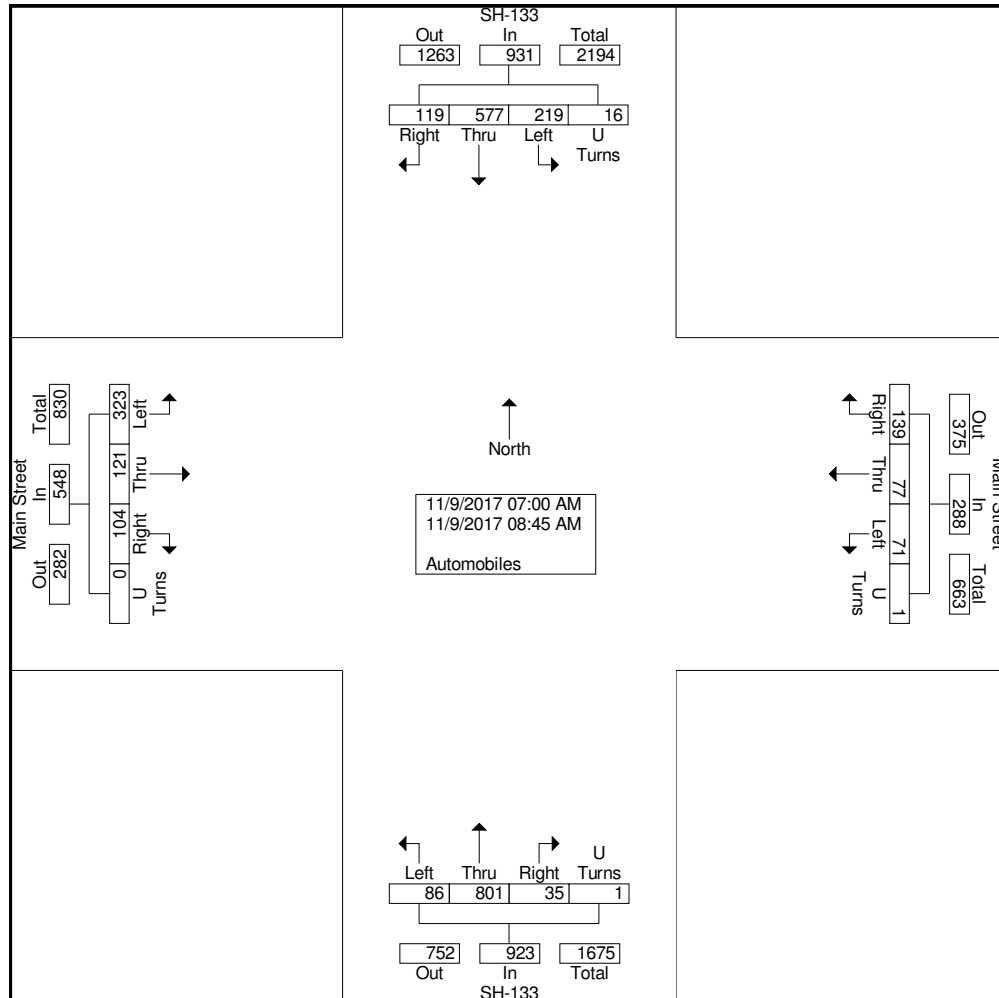


Ridgeview Data
Collection

Morrison, CO 80465

Carbondale, CO
Main Street Marketplace
AM Peak
Main Street and SH-133

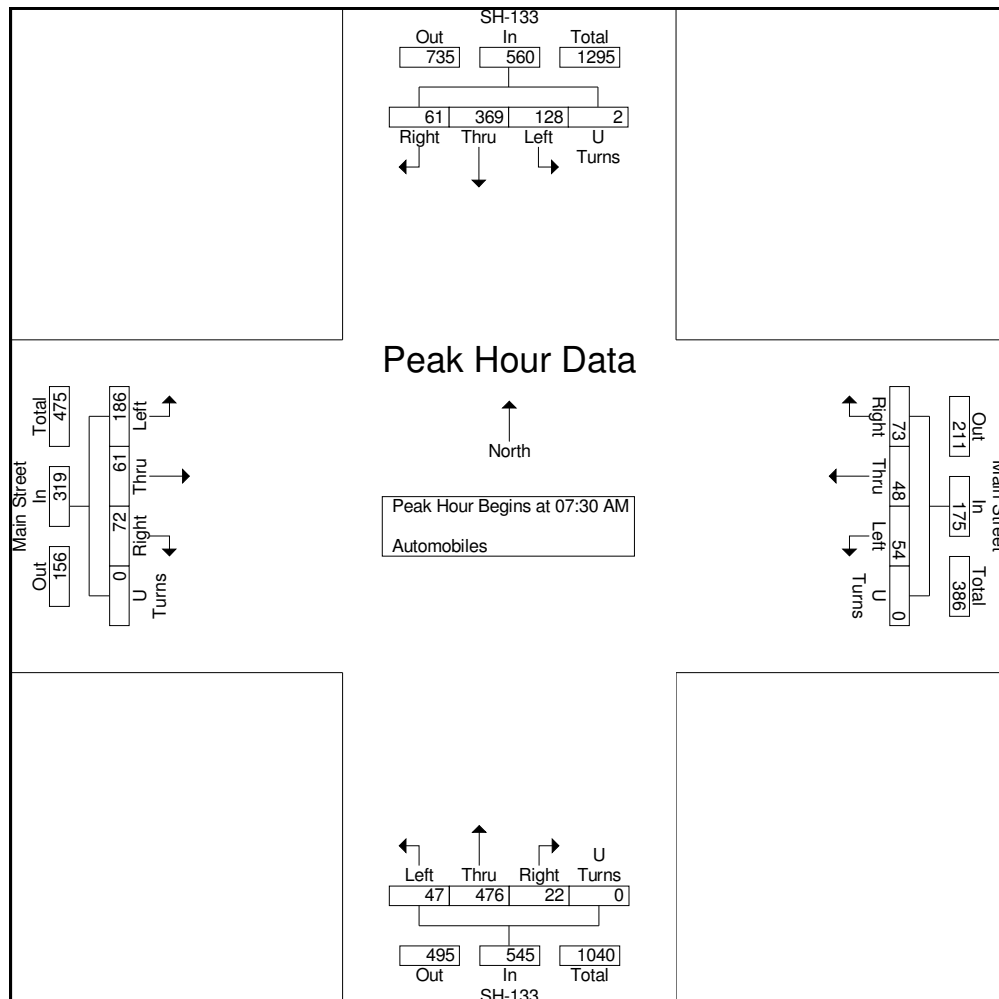
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Site Code : IPO 284
Start Date : 11/9/2017
Page No : 2



Carbondale, CO
Main Street Marketplace
AM Peak
Main Street and SH-133

File Name : Main and SH 133 AM
Site Code : IPO 284
Start Date : 11/9/2017
Page No : 3

	Main Street Eastbound					Main Street Westbound					SH-133 Northbound					SH-133 Southbound					
Start Time	Left	Thru	Right	U Turns	App. Total	Left	Thru	Right	U Turns	App. Total	Left	Thru	Right	U Turns	App. Total	Left	Thru	Right	U Turns	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30 AM																					
07:30 AM	48	12	15	0	75	11	11	11	0	33	9	117	0	0	126	24	105	10	1	140	374
07:45 AM	47	17	27	0	91	24	12	15	0	51	13	127	5	0	145	30	124	15	1	170	457
08:00 AM	50	17	18	0	85	17	10	30	0	57	17	137	8	0	162	41	90	16	0	147	451
08:15 AM	41	15	12	0	68	2	15	17	0	34	8	95	9	0	112	33	50	20	0	103	317
Total Volume	186	61	72	0	319	54	48	73	0	175	47	476	22	0	545	128	369	61	2	560	1599
% App. Total	58.3	19.1	22.6	0		30.9	27.4	41.7	0		8.6	87.3	4	0		22.9	65.9	10.9	0.4		
PHF	.930	.897	.667	.000	.876	.563	.800	.608	.000	.768	.691	.869	.611	.000	.841	.780	.744	.763	.500	.824	.875





Morrison, CO 80465

Carbondale, CO
Main Street Marketplace
PM Peak
Main Street and SH-133

File Name : Main and SH 133 PM
Site Code : IPO 284
Start Date : 11/8/2017
Page No : 1

Groups Printed- Automobiles

Start Time	Main Street Eastbound					Main Street Westbound					SH-133 Northbound					SH-133 Southbound					Int. Total
	Left	Thru	Right	U Turns	App. Total	Left	Thru	Right	U Turns	App. Total	Left	Thru	Right	U Turns	App. Total	Left	Thru	Right	U Turns	App. Total	
04:00 PM	38	22	10	0	70	26	28	28	0	82	10	80	8	1	99	34	101	29	1	165	416
04:15 PM	41	18	11	0	70	19	34	34	0	87	14	87	4	0	105	38	114	27	1	180	442
04:30 PM	46	22	18	0	86	24	31	27	0	82	15	89	8	0	112	38	104	28	0	170	450
04:45 PM	44	18	6	0	68	23	21	27	0	71	19	71	13	0	103	44	114	34	0	192	434
Total	169	80	45	0	294	92	114	116	0	322	58	327	33	1	419	154	433	118	2	707	1742
05:00 PM	42	20	16	0	78	25	30	34	0	89	17	87	5	1	110	38	117	38	0	193	470
05:15 PM	44	23	11	0	78	19	39	34	0	92	12	85	8	0	105	42	135	44	0	221	496
05:30 PM	39	18	16	0	73	19	39	29	0	87	9	80	7	0	96	35	136	50	0	221	477
05:45 PM	39	19	9	0	67	12	26	29	0	67	11	71	7	1	90	45	121	42	0	208	432
Total	164	80	52	0	296	75	134	126	0	335	49	323	27	2	401	160	509	174	0	843	1875
Grand Total	333	160	97	0	590	167	248	242	0	657	107	650	60	3	820	314	942	292	2	1550	3617
Apprch %	56.4	27.1	16.4	0		25.4	37.7	36.8	0		13	79.3	7.3	0.4		20.3	60.8	18.8	0.1		
Total %	9.2	4.4	2.7	0	16.3	4.6	6.9	6.7	0	18.2	3	18	1.7	0.1	22.7	8.7	26	8.1	0.1	42.9	

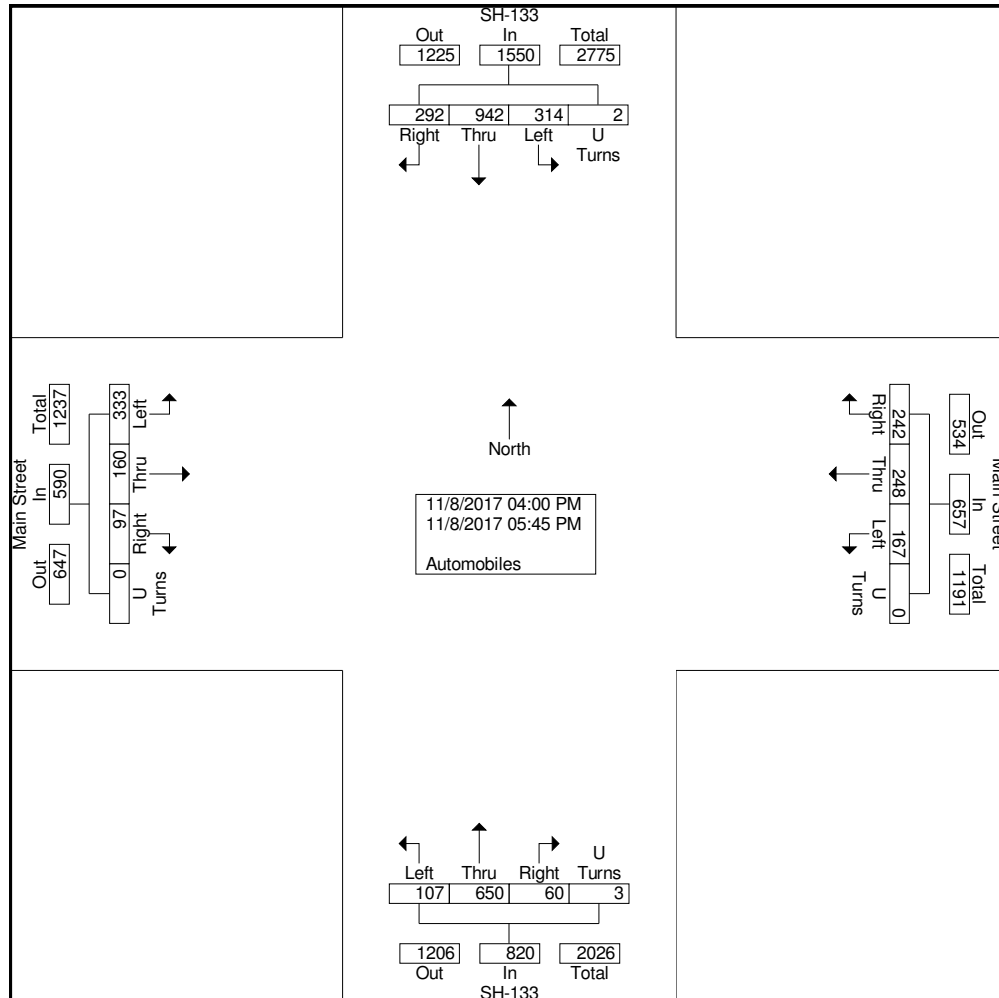


Ridgeview Data
Collection

Morrison, CO 80465

Carbondale, CO
Main Street Marketplace
PM Peak
Main Street and SH-133

File Name : Main and SH 133 PM
Site Code : IPO 284
Start Date : 11/8/2017
Page No : 2



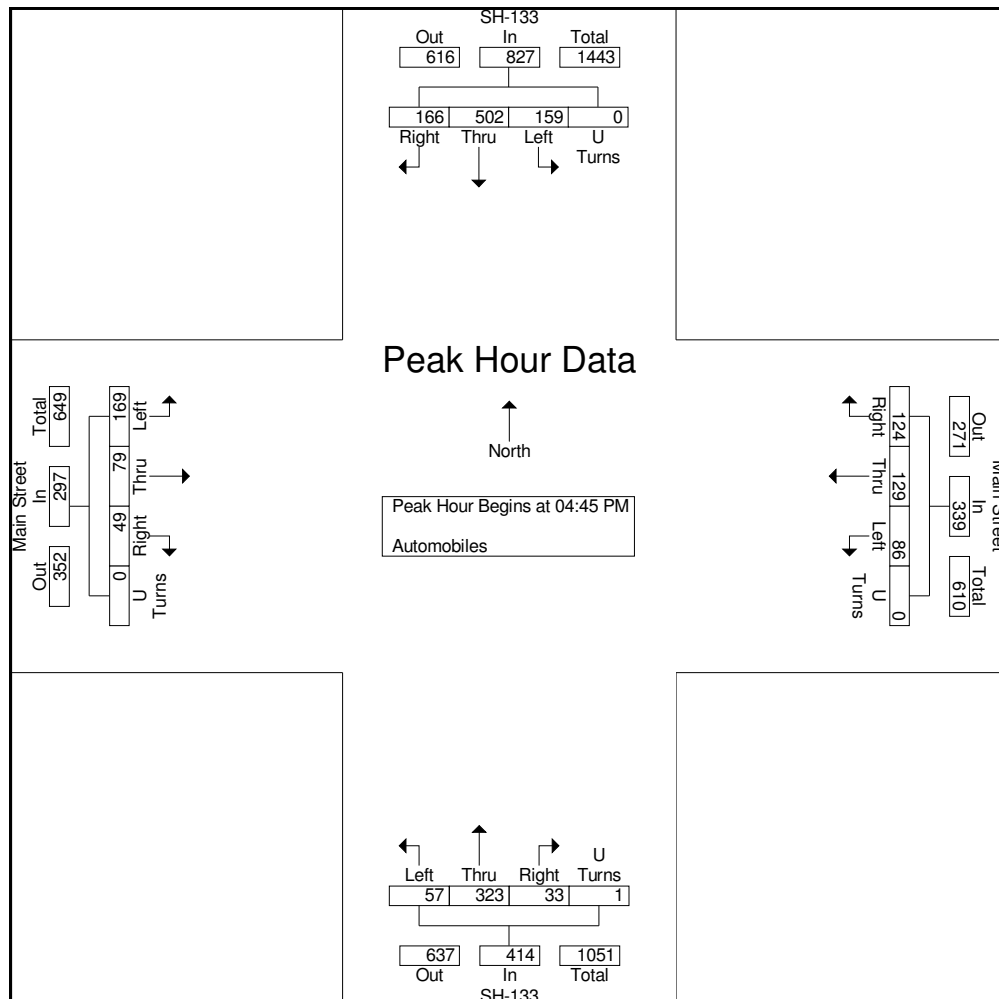


Morrison, CO 80465

Carbondale, CO
Main Street Marketplace
PM Peak
Main Street and SH-133

File Name : Main and SH 133 PM
Site Code : IPO 284
Start Date : 11/8/2017
Page No : 3

	Main Street Eastbound					Main Street Westbound					SH-133 Northbound					SH-133 Southbound					
Start Time	Left	Thru	Right	U Turns	App. Total	Left	Thru	Right	U Turns	App. Total	Left	Thru	Right	U Turns	App. Total	Left	Thru	Right	U Turns	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:45 PM																					
04:45 PM	44	18	6	0	68	23	21	27	0	71	19	71	13	0	103	44	114	34	0	192	434
05:00 PM	42	20	16	0	78	25	30	34	0	89	17	87	5	1	110	38	117	38	0	193	470
05:15 PM	44	23	11	0	78	19	39	34	0	92	12	85	8	0	105	42	135	44	0	221	496
05:30 PM	39	18	16	0	73	19	39	29	0	87	9	80	7	0	96	35	136	50	0	221	477
Total Volume	169	79	49	0	297	86	129	124	0	339	57	323	33	1	414	159	502	166	0	827	1877
% App. Total	56.9	26.6	16.5	0		25.4	38.1	36.6	0		13.8	78	8	0.2		19.2	60.7	20.1	0		
PHF	.960	.859	.766	.000	.952	.860	.827	.912	.000	.921	.750	.928	.635	.250	.941	.903	.923	.830	.000	.936	.946



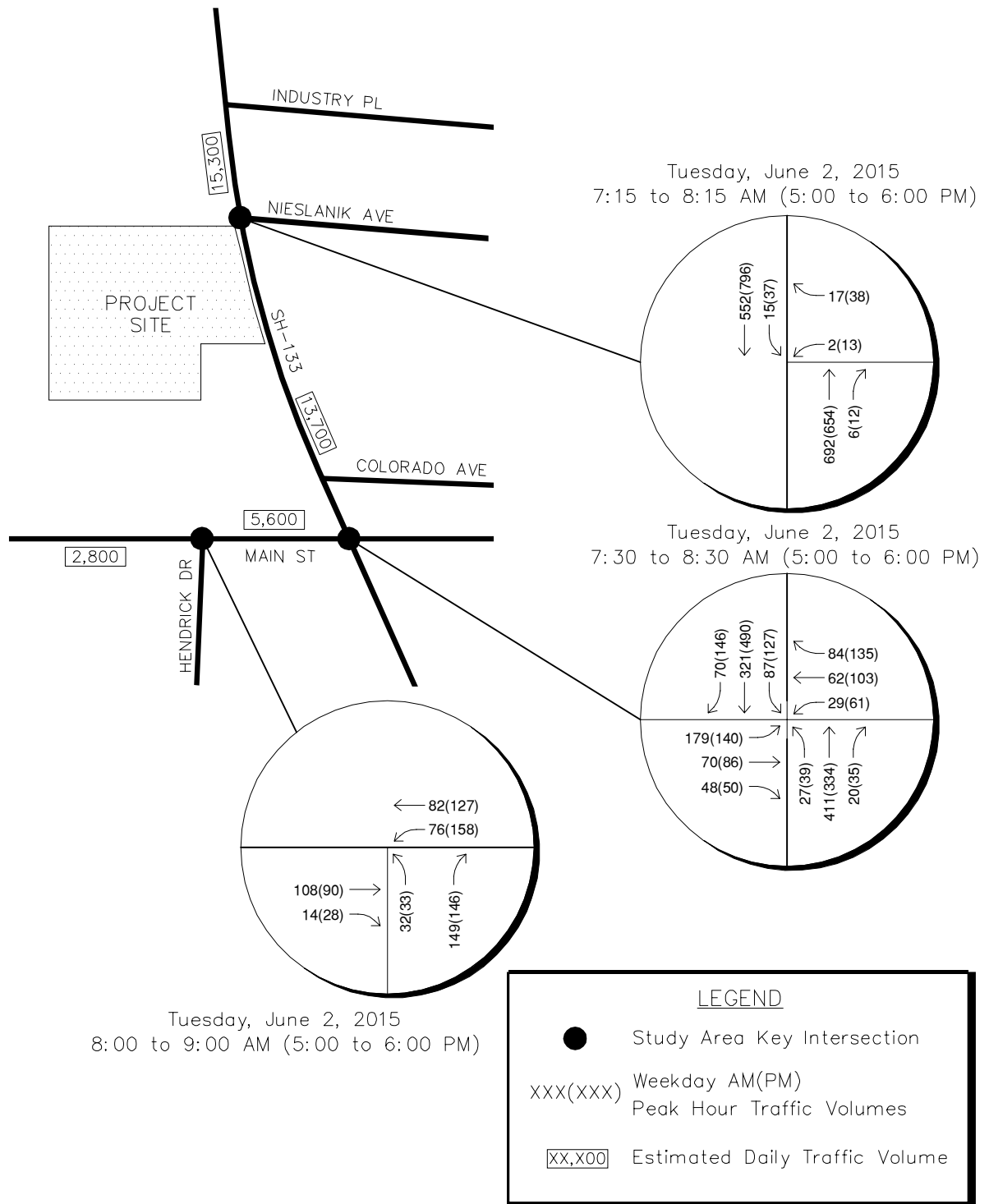
APPENDIX B

CDOT Traffic Data

Main Street Marketplace Background Traffic Assignment

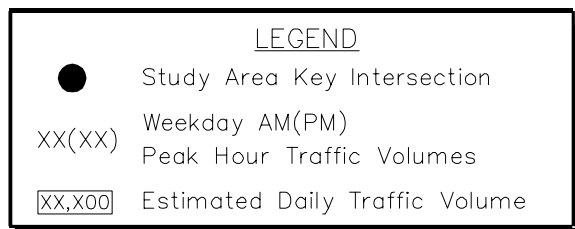
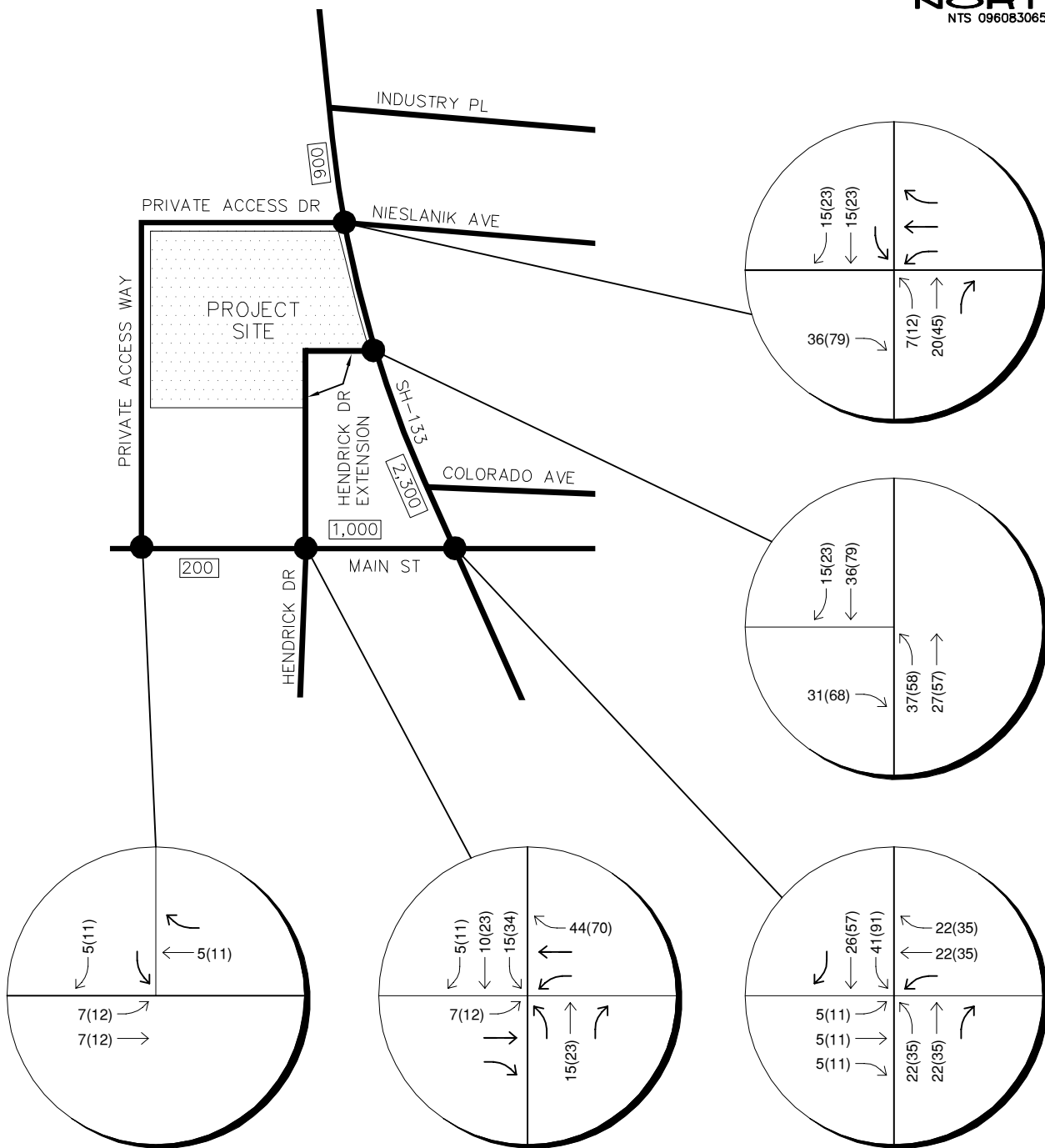
City Market Background Traffic Assignment

ROUTE	REFPT	ENDREFPT	AADT	AADTYR	YR20FACTOR	DHV	LOCATION
133A	67.422	67.799	11000	2018	1.15	11	ON SH 133 SE/O MAIN ST CARBONDALE
133A	67.799	68.821	18000	2018	1.12	10.5	ON SH 133 S/O SH 82 CARBONDALE
Annual Growth					0.70%		



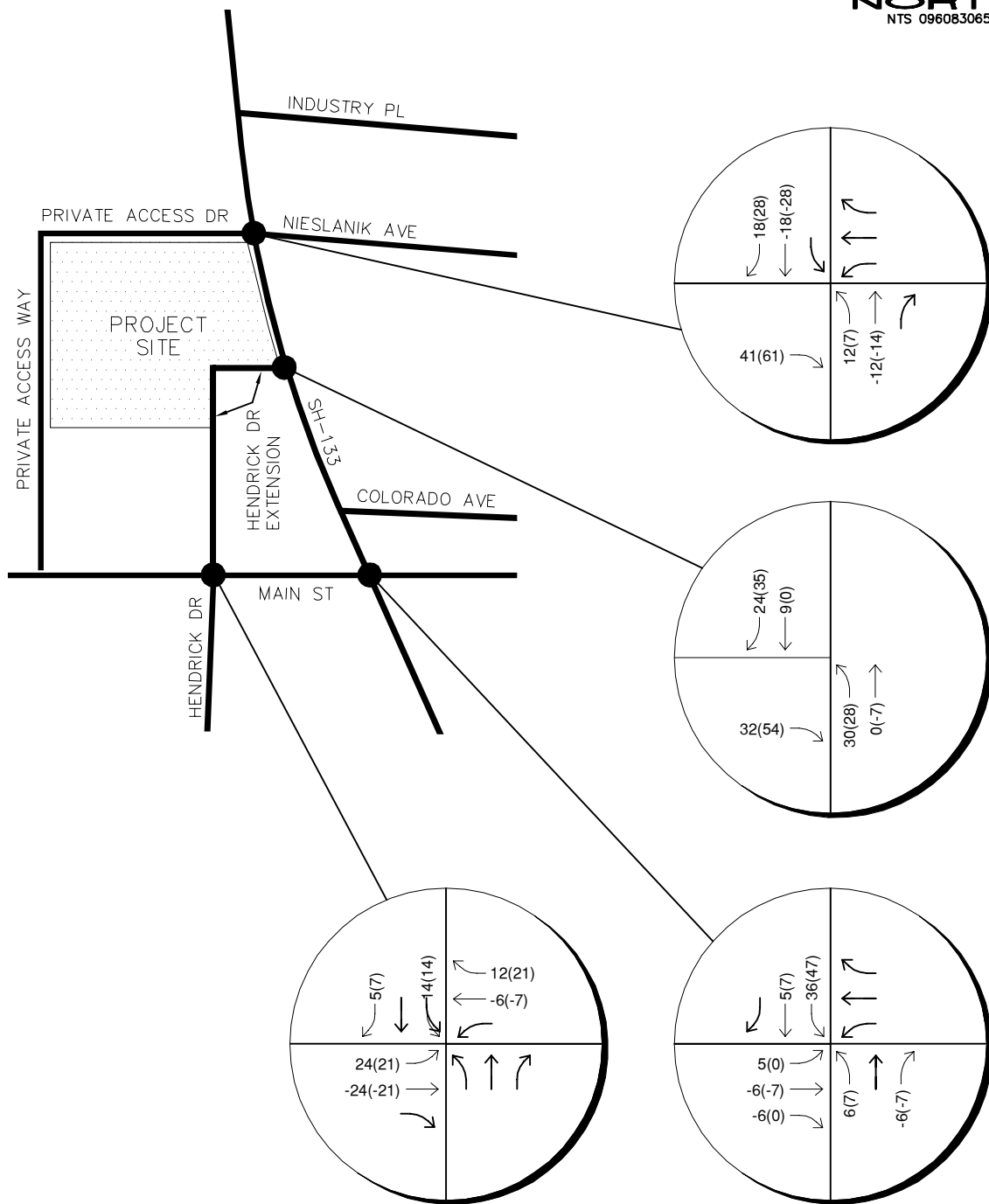
CITY MARKET GROCERY & GAS STATION
 (SWC NIESLANIK AVE & SH-133)
 EXISTING TRAFFIC VOLUMES

FIGURE 3



CITY MARKET GROCERY & GAS STATION
(SWC NIESLANIK AVE & SH-133)
NON PASS-BY TRAFFIC ASSIGNMENT

FIGURE 9

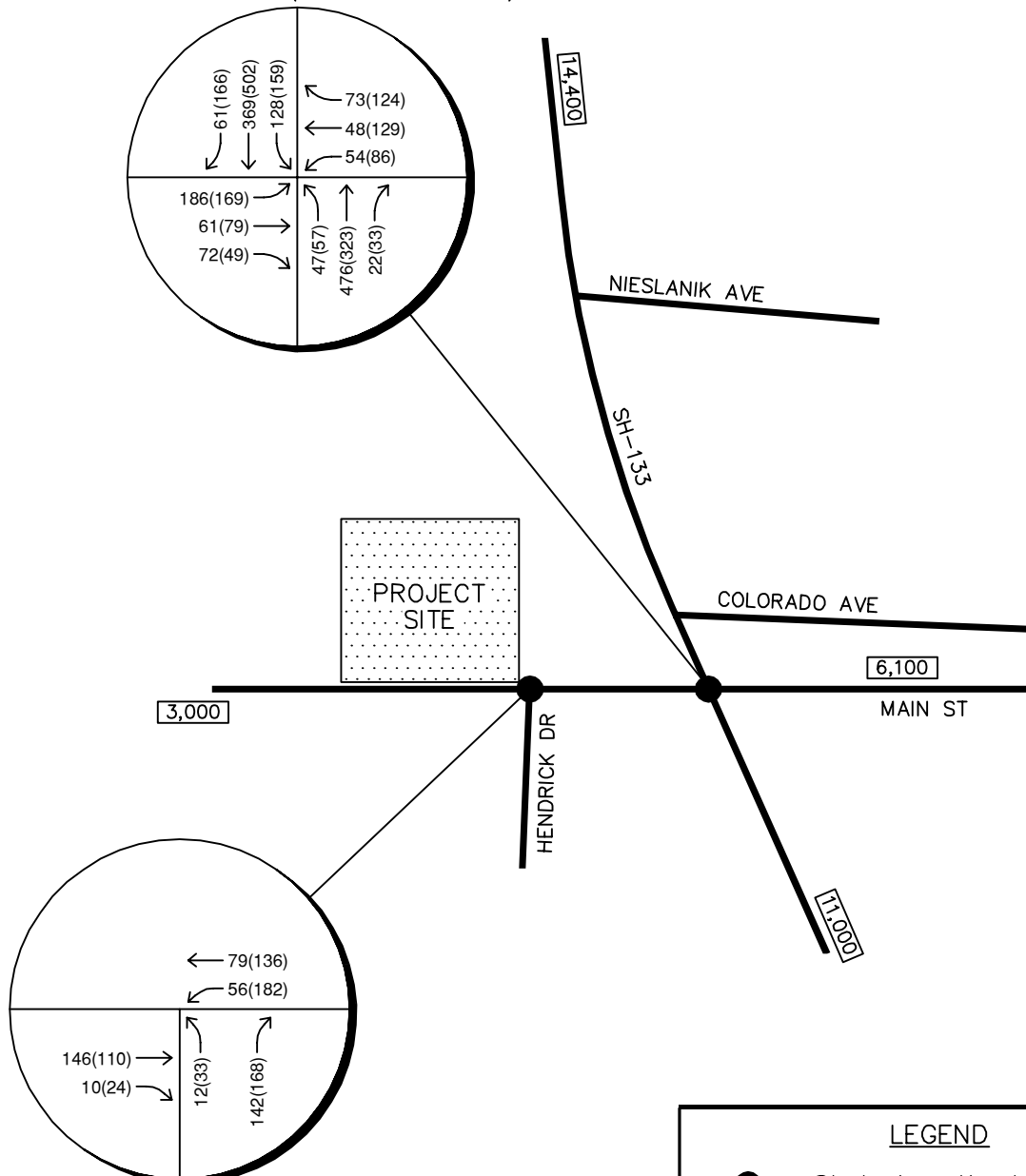


LEGEND	
●	Study Area Key Intersection
XX(X)	Weekday AM(PM)
XX(X)	Peak Hour Traffic Volumes

CITY MARKET GROCERY & GAS STATION
(SWC NIESLANIK AVE & SH-133)
PASS-BY TRAFFIC ASSIGNMENT

FIGURE 10

Thursday, November 9 2017
 7:30 to 8:30 AM (4:45 to 5:45 PM)



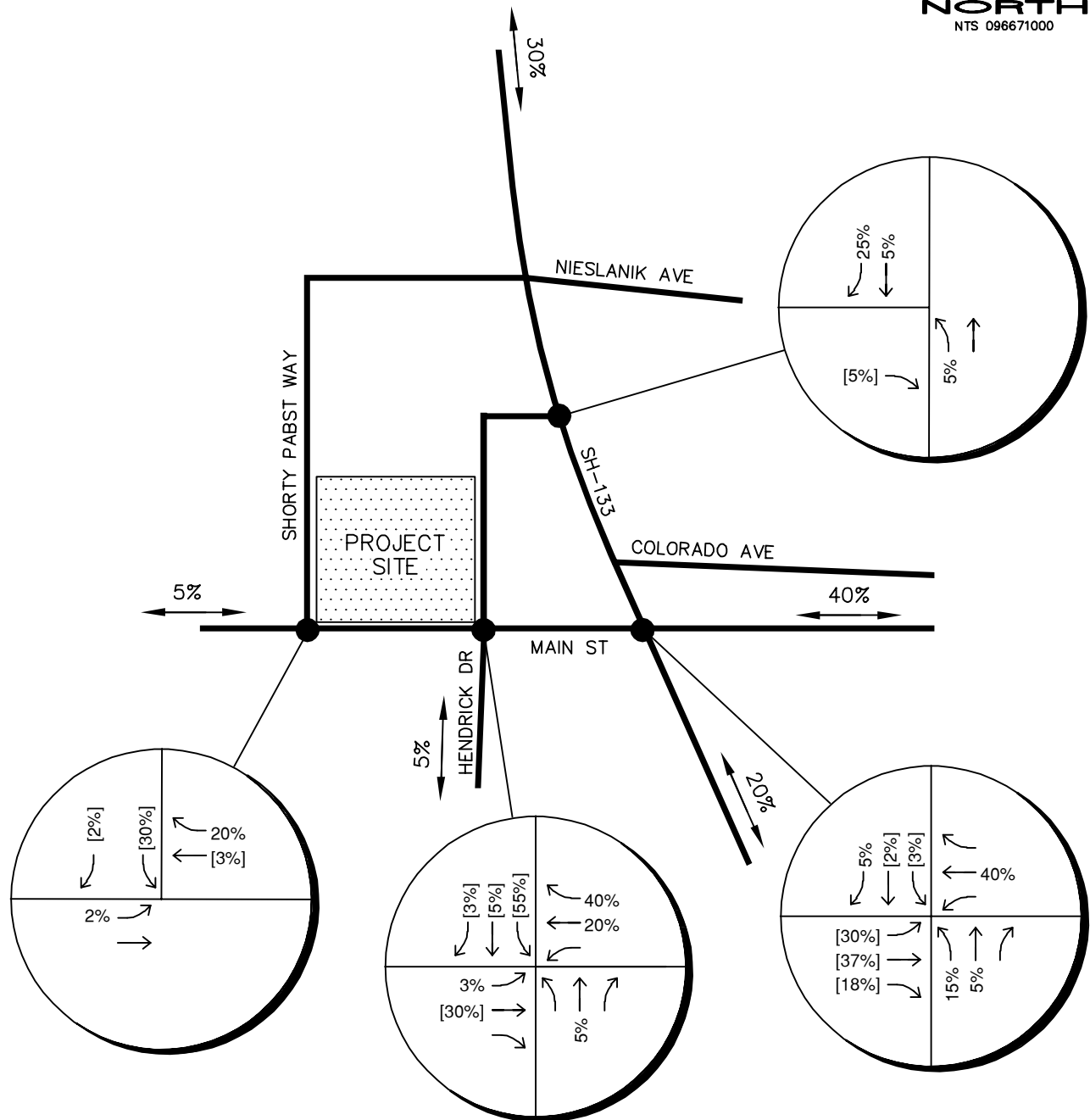
Thursday, November 9 2017
 7:30 to 8:30 AM (5:00 to 6:00 PM)

LEGEND

- Study Area Key Intersection
- XXX(XXX) Weekday AM(PM)
Peak Hour Traffic Volumes
- XX,X00 Estimated Daily Traffic Volume

MAIN STREET MARKETPLACE
 (NWC SH-133 AND MAIN STREET)
 EXISTING TRAFFIC VOLUMES

FIGURE 3



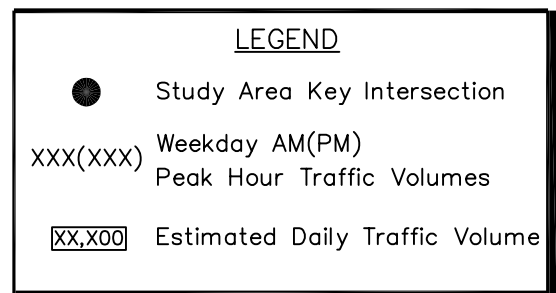
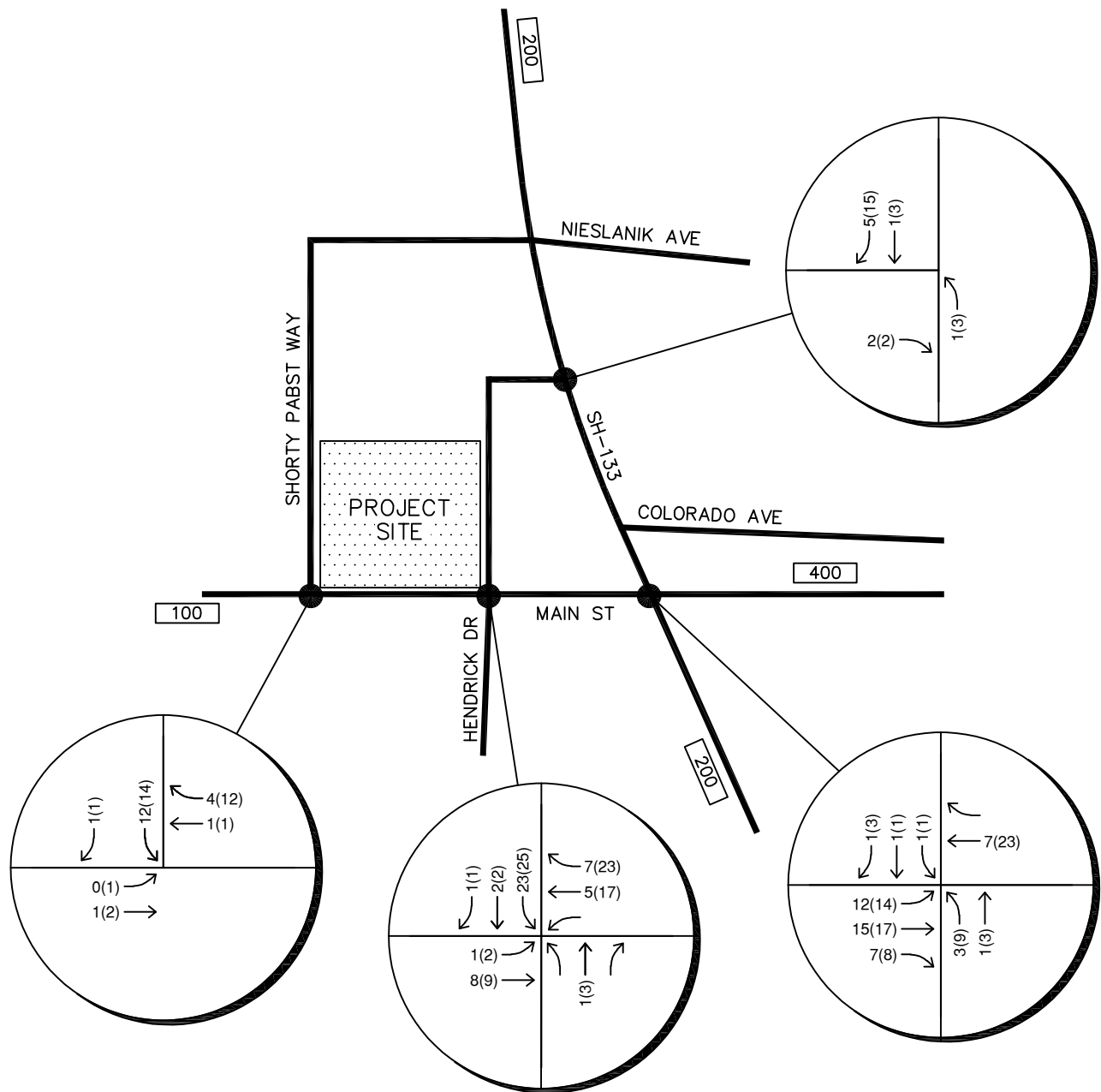
LEGEND

● Study Area Key Intersection

XX%[XX%] Entering[Exiting] Trip Distribution Percentage

MAIN STREET MARKETPLACE
 (NWC SH-133 AND MAIN STREET)
 2040 PROJECT TRIP DISTRIBUTION

FIGURE 7



MAIN STREET MARKETPLACE
 (NWC SH-133 AND MAIN STREET)
 2040 PROJECT TRAFFIC ASSIGNMENT

FIGURE 9

APPENDIX C

Trip Generation Worksheets

Carbondale Marketplace Lot 5

Weekday Trip Generation Summary

Land Use	Quantity	Units	Vehicle Trips						
			Daily	Weekday AM Peak Hour			Weekday PM Peak Hour		
				In	Out	Total	In	Out	Total
Office Building (ITE 710)	5,000	Square Feet	50	5	1	6	1	5	6
Shopping Center (ITE 820)	5,000	Square Feet	188	3	2	5	9	10	19
Drive-in Bank (ITE 912)	5,860	Square Feet	588	32	24	56	60	60	120
Client Generated - Builders FirstSource			438	35	13	48	9	37	46
Total Site Generated Trips			1,264	75	40	115	79	112	191

Project Carbondale Marketplace Lot 5
 Subject Trip Generation for Office Building
 Designed by Tyler Smith Date March 12, 2020 Job No. ####
 Checked by Date Sheet No. 1 of 1

TRIP GENERATION MANUAL TECHNIQUES

ITE Trip Generation Manual 10th Edition, Average Rates

Land Use Code - General Office Building (710)

Independant Variable - 1000 Square Feet (X)

SF = **5,000**

X = 5.000

T = Average Vehicle Trip Ends

Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m. (700 Series Page 4)

(T) = 1.16 (X)		Directional Distribution:	86% ent.	14% exit.
(T) = 1.16 *	(5.0)	T = 6	Average Vehicle Trip Ends	
		5 entering	1	exiting
		5 + 1 = 6		

Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m. (700 Series Page 5)

(T) = 1.15 (X)		Directional Distribution:	16% ent.	84% exit.
(T) = 1.15 *	(5.0)	T = 6	Average Vehicle Trip Ends	
		1 entering	5	exiting
		1 + 5 = 6		

Weekday (700 Series Page 3)

Average Weekday		Directional Distribution:	50% ent.	50% exit.
(T) = 9.74 (X)		T = 50	Average Vehicle Trip Ends	
(T) = 9.74 *	(5.0)	25 entering	25	exiting
		25 + 25 = 50		

Saturday, Peak Hour of Generator (700 Series Page 9)

Daily Weekday		Directional Distribution:	54% ent.	46% exit.
(T) = 0.53 (X)		T = 4	Average Vehicle Trip Ends	
(T) = 0.53 *	(5.0)	2 entering	2	exiting
		2 + 2 = 4		

Project Carbondale Marketplace Lot 5
 Subject Trip Generation for Shopping Center
 Designed by Tyler Smith Date March 12, 2020 Job No. 096671002
 Checked by _____ Date _____ Sheet No. 1 of 1

TRIP GENERATION MANUAL TECHNIQUES

ITE Trip Generation Manual 10th Edition, Average Rate Equations

Land Use Code - Shopping Center (820)

Independant Variable - 1000 Square Feet Gross Leasable Area (X)

Gross Leasable Area = **5,000** Square Feet

X = 5.000

T = Average Vehicle Trip Ends

Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m. (800 Series Page 139)

Average Weekday		Directional Distribution:	62% ent.	38% exit.
T = 0.94 * (X)		T =	5	Average Vehicle Trip Ends
T = 0.94 *	5	3	entering	2 exiting
		3	+	2 = 5

Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m. (800 Series page 140)

Average Weekday		Directional Distribution:	48% ent.	52% exit.
T = 3.81 * (X)		T =	19	Average Vehicle Trip Ends
T = 3.81 *	5	9	entering	10 exiting
		9	+	10 = 19

Weekday (800 Series page 138)

Average Weekday		Directional Distribution:	50% entering, 50% exiting	
T = 37.75 * (X)		T =	188 Average Vehicle Trip Ends	
T = 37.75 *	5	94	entering 94 exiting	
		94	+	94 = 188

Non Pass-By Trip Volumes (Per ITE Trip Generation Handbook, 3rd Edition September 2017-Page 190)

AM Peak Hour =	66%	Non-Pass By	PM Peak Hour =	66%	Non-Pass By
	IN	Out	Total		
AM Peak	2	1	3		
PM Peak	6	7	13		
Daily	62	62	124	PM Peak Hour Rate Applied to Daily	

Pass-By Trip Volumes (Per ITE Trip Generation Handbook, 3rd Edition September 2017 -Page 190)

AM Peak Hour =	34%	Pass By	PM Peak Hour =	34%	Pass By
	IN	Out	Total		
AM Peak	1	1	2		
PM Peak	3	3	6		
Daily	32	32	64	PM Peak Hour Rate Applied to Daily	

Project Carbondale Marketplace Lot 5
 Subject Trip Generation for Drive-In Bank (proposed use)
 Designed by Tyler Smith Date March 12, 2020 Job No. 96671002
 Checked by _____ Date _____ Sheet No. 1 of 1

TRIP GENERATION MANUAL TECHNIQUES

ITE Trip Generation Manual 10th Edition, Average Rate Equation:

Land Use Code - Drive-in Bank (912)

Independent Variable - 1000 Square Feet Gross Floor Area (X)

Gross Floor Area = **5,860** Square Feet

X = 5.860

T = Average Vehicle Trip Ends

Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m. (900 Series Page 13)

Average Weekday Directional Distribution: 58% ent. 42% exit.
 T = 9.50 (X) T = 56 Average Vehicle Trip Ends
 T = 9.50 * 5.860 32 entering 24 exiting
 32 + 24 (*) = 56

Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m. (900 Series Page 14)

Average Weekday Directional Distribution: 50% ent. 50% exit.
 T = 20.45 (X) T = 120 Average Vehicle Trip Ends
 T = 20.45 * 5.860 60 entering 60 exiting
 60 + 60 = 120

Weekday (900 Series Page 12)

Average Weekday Directional Distribution: 50% entering, 50% exiting
 T = 100.03 (X) T = 588 Average Vehicle Trip Ends
 T = 100.03 * 5.860 294 entering 294 exiting
 294 + 294 (*) = 588

Saturday Peak Hour of Generator (900 Series Page 18)

Average Saturday Directional Distribution: 51% ent. 49% exit.
 T = 26.35 (X) T = 154 Average Vehicle Trip Ends
 T = 26.35 * 5.860 79 entering 75 exiting
 79 (*) + 75 = 154

Non Pass-By Trip Volumes (Per ITE Trip Generation Handbook, 3rd Edition September 2017-Page 207)

AM Peak Hour =	71%	Non-Pass By	PM Peak Hour =	65%	Non-Pass By
	IN	Out			
AM Peak	23	17			
PM Peak	39	39			
Daily	191	191			
		382			PM Peak Hour Rate Applied to Daily

Pass-By Trip Volumes (Per ITE Trip Generation Handbook, 3rd Edition September 2017 -Page 207)

AM Peak Hour =	29%	Pass By	PM Peak Hour =	35%	Pass By
	IN	Out			
AM Peak	9	7			
PM Peak	21	21			
Daily	103	103			
		206			PM Peak Hour Rate Applied to Daily

BFS Daily trip log

	Times of Day	BFS Employees	Incoming Semi's	Pick-up's through 24' Tandems Outgoing BFS Delivery	Customer/Contractor visits- mostly pick-up trucks	
Winter Months						Typically Oct - March
Employees coming to work for the day total 38	6am	2				
	6:30 AM	9				
	7am	10				
	7:30am	10				
	8am	7				
Employees leaving work for the day	3:30pm	8				
	4pm	13				
	4:30pm	17				
Winter Months						Typically Oct - March
Incoming Semi's	8am- 4pm Daily		4			
Contractors/Customers	6:30am-9am			6	45	
	9am-12pm			6	25	
	12pm-3pm			3	35	
	3pm-4:30pm			3	10	
	Trip Totals	38	4	18	115	

BFS Daily trip log





	Times of Day	BFS Employees	Incoming Semi's	Pick-up's through 24' Tandems Outgoing BFS Delivery	Customer/Contractor visits- mostly pick-up trucks	
Summer Months						Typically Apr - Sept
Employees coming to work for the day total 40	6am	2				
	6:30 AM	11				
	7am	10				
	7:30am	10				
	8am	7				
Employees leaving work for the day	3:30pm	8				
	4pm	5				
	4:30pm	15				
	5:00pm	12				
Summer Months						Typically Apr - Sept
Incoming Semi's	8am- 4pm Daily		5			
Contractors/Customers	6:30am-9am			6	55	
	9am-12pm			6	40	
	12pm-3pm			6	35	
	3pm-4:30pm			6	20	
	Trip Totals	40	5	24	150	





Builders FirstSource Trip Generation

	Employees Entering	Employees Exiting	Semis Entering	Semis Exiting	Pickups Entering	Pickups Exiting	Customers Entering	Customers Exiting	Total Entering	Total Exiting	Total
AM Peak Hour	21	0	1	0	2	2	11	11	35	13	48
PM Peak Hour	0	27	0	1	2	2	7	7	9	37	46
Daily	40	40	5	5	24	24	150	150	219	219	438








APPENDIX D

Intersection Analysis Worksheets

Intersection						
Int Delay, s/veh	0.5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	2	18	727	6	16	580
Future Vol, veh/h	2	18	727	6	16	580
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	50	61	85	50	75	82
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	4	30	855	12	21	707
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1610	861	0	0	867	0
Stage 1	861	-	-	-	-	-
Stage 2	749	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	115	355	-	-	777	-
Stage 1	414	-	-	-	-	-
Stage 2	467	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	112	355	-	-	777	-
Mov Cap-2 Maneuver	112	-	-	-	-	-
Stage 1	414	-	-	-	-	-
Stage 2	454	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	19.5	0	0.3			
HCM LOS	C					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	282	777	-	
HCM Lane V/C Ratio	-	-	0.119	0.027	-	
HCM Control Delay (s)	-	-	19.5	9.8	-	
HCM Lane LOS	-	-	C	A	-	
HCM 95th %tile Q(veh)	-	-	0.4	0.1	-	

Intersection						
Int Delay, s/veh	1.5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	14	40	687	13	39	836
Future Vol, veh/h	14	40	687	13	39	836
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	81	79	90	50	71	93
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	17	51	763	26	55	899
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1785	776	0	0	789	0
Stage 1	776	-	-	-	-	-
Stage 2	1009	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	90	397	-	-	831	-
Stage 1	454	-	-	-	-	-
Stage 2	352	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	84	397	-	-	831	-
Mov Cap-2 Maneuver	84	-	-	-	-	-
Stage 1	454	-	-	-	-	-
Stage 2	329	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	31.2	0	0.6			
HCM LOS	D					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	204	831	-	
HCM Lane V/C Ratio	-	-	0.333	0.066	-	
HCM Control Delay (s)	-	-	31.2	9.6	-	
HCM Lane LOS	-	-	D	A	-	
HCM 95th %tile Q(veh)	-	-	1.4	0.2	-	

Intersection												
Int Delay, s/veh	1.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↰		↰↱		↰	↱		↰	↱	↰
Traffic Vol, veh/h	0	0	77	2	0	18	19	735	6	16	577	33
Future Vol, veh/h	0	0	77	2	0	18	19	735	6	16	577	33
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	-	100	-	-	100	-	195
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	50	92	61	92	85	50	75	82	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	84	4	0	30	21	865	12	21	704	36
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	-	-	704	1719	1695	871	740	0	0	877	0	0
Stage 1	-	-	-	913	913	-	-	-	-	-	-	-
Stage 2	-	-	-	806	782	-	-	-	-	-	-	-
Critical Hdwy	-	-	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	-	-	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	0	0	551	30	41	350	806	-	-	770	-	-
Stage 1	0	0	-	328	352	-	-	-	-	-	-	-
Stage 2	0	0	-	417	405	-	-	-	-	-	-	-
Platoon blocked, %			1	1	1		1	-	-		-	-
Mov Cap-1 Maneuver	-	-	551	24	39	350	806	-	-	770	-	-
Mov Cap-2 Maneuver	-	-	-	157	181	-	-	-	-	-	-	-
Stage 1	-	-	-	319	343	-	-	-	-	-	-	-
Stage 2	-	-	-	344	394	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	12.7		18.3		0.2		0.3					
HCM LOS	B		C									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	806	-	-	551	305	770	-	-				
HCM Lane V/C Ratio	0.026	-	-	0.152	0.11	0.028	-	-				
HCM Control Delay (s)	9.6	-	-	12.7	18.3	9.8	-	-				
HCM Lane LOS	A	-	-	B	C	A	-	-				
HCM 95th %tile Q(veh)	0.1	-	-	0.5	0.4	0.1	-	-				

Intersection												
Int Delay, s/veh	3.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	140	14	0	40	19	718	13	39	831	51
Future Vol, veh/h	0	0	140	14	0	40	19	718	13	39	831	51
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	-	100	-	-	100	-	195
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	85	92	75	82	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	152	15	0	43	21	845	14	52	1013	55

Major/Minor	Minor2	Minor1		Major1		Major2							
Conflicting Flow All	-	-	1013	2115	2066	852	1068	0	0	859	0	0	0
Stage 1	-	-	-	894	894	-	-	-	-	-	-	-	-
Stage 2	-	-	-	1221	1172	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-	-
Critical Hdwy Stg 1	-	-	-	6.12	5.52	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	6.12	5.52	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-	-
Pot Cap-1 Maneuver	0	0	290	37	54	359	653	-	-	782	-	-	-
Stage 1	0	0	-	336	360	-	-	-	-	-	-	-	-
Stage 2	0	0	-	220	266	-	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	290	16	49	359	653	-	-	782	-	-	-
Mov Cap-2 Maneuver	-	-	-	61	147	-	-	-	-	-	-	-	-
Stage 1	-	-	-	325	348	-	-	-	-	-	-	-	-
Stage 2	-	-	-	98	248	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	30.3	40.7	0.3	0.5
HCM LOS	D	E		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	653	-	-	290	158	782	-
HCM Lane V/C Ratio	0.032	-	-	0.525	0.371	0.066	-
HCM Control Delay (s)	10.7	-	-	30.3	40.7	9.9	-
HCM Lane LOS	B	-	-	D	E	A	-
HCM 95th %tile Q(veh)	0.1	-	-	2.8	1.6	0.2	-

Intersection												
Int Delay, s/veh	1.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↰		↰↱		↰	↱		↰	↱	↰
Traffic Vol, veh/h	0	0	105	2	0	18	64	747	6	16	577	56
Future Vol, veh/h	0	0	105	2	0	18	64	747	6	16	577	56
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	-	100	-	-	100	-	195
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	81	92	79	92	90	50	71	93	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	114	2	0	23	70	830	12	23	620	61
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	-	-	620	1730	1703	836	681	0	0	842	0	0
Stage 1	-	-	-	976	976	-	-	-	-	-	-	-
Stage 2	-	-	-	754	727	-	-	-	-	-	-	-
Critical Hdwy	-	-	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	-	-	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	0	0	*605	29	41	367	881	-	-	794	-	-
Stage 1	0	0	-	302	329	-	-	-	-	-	-	-
Stage 2	0	0	-	468	447	-	-	-	-	-	-	-
Platoon blocked, %			1	1	1	1	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	*605	22	36	367	881	-	-	794	-	-
Mov Cap-2 Maneuver	-	-	-	142	167	-	-	-	-	-	-	-
Stage 1	-	-	-	278	303	-	-	-	-	-	-	-
Stage 2	-	-	-	369	434	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	12.3		17.3		0.7		0.3					
HCM LOS	B		C									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)	881	-	-	605	318	794	-	-				
HCM Lane V/C Ratio	0.079	-	-	0.189	0.079	0.028	-	-				
HCM Control Delay (s)	9.4	-	-	12.3	17.3	9.7	-	-				
HCM Lane LOS	A	-	-	B	C	A	-	-				
HCM 95th %tile Q(veh)	0.3	-	-	0.7	0.3	0.1	-	-				
Notes												
~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon												

Intersection												
Int Delay, s/veh	4.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↰		↰↱		↰	↱		↰	↱	↰
Traffic Vol, veh/h	0	0	218	14	0	40	66	752	13	39	831	75
Future Vol, veh/h	0	0	218	14	0	40	66	752	13	39	831	75
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	-	100	-	-	100	-	195
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	237	15	0	43	72	817	14	42	903	82
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	-	-	903	2115	2037	824	985	0	0	831	0	0
Stage 1	-	-	-	968	968	-	-	-	-	-	-	-
Stage 2	-	-	-	1147	1069	-	-	-	-	-	-	-
Critical Hdwy	-	-	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	-	-	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	0	0	*354	~ 1	4	373	*530	-	-	801	-	-
Stage 1	0	0	-	305	332	-	-	-	-	-	-	-
Stage 2	0	0	-	200	245	-	-	-	-	-	-	-
Platoon blocked, %			1	1	1		1	-	-		-	-
Mov Cap-1 Maneuver	-	-	*354	0	3	373	*530	-	-	801	-	-
Mov Cap-2 Maneuver	-	-	-	~ -9	95	-	-	-	-	-	-	-
Stage 1	-	-	-	264	287	-	-	-	-	-	-	-
Stage 2	-	-	-	63	232	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	33.5				1		0.4					
HCM LOS	D											
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	* 530	-	-	354	+	801	-	-				
HCM Lane V/C Ratio	0.135	-	-	0.669	-	0.053	-	-				
HCM Control Delay (s)	12.9	-	-	33.5	-	9.7	-	-				
HCM Lane LOS	B	-	-	D	-	A	-	-				
HCM 95th %tile Q(veh)	0.5	-	-	4.6	-	0.2	-	-				
Notes												
~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon												

Intersection												
Int Delay, s/veh	1.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↰		↰↱		↰	↱		↰	↱	↰
Traffic Vol, veh/h	0	0	77	2	0	20	19	832	7	18	654	33
Future Vol, veh/h	0	0	77	2	0	20	19	832	7	18	654	33
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	-	100	-	-	100	-	195
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	84	2	0	22	21	904	8	20	711	36
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	-	-	711	1761	1737	908	747	0	0	912	0	0
Stage 1	-	-	-	950	950	-	-	-	-	-	-	-
Stage 2	-	-	-	811	787	-	-	-	-	-	-	-
Critical Hdwy	-	-	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	-	-	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	0	0	*534	21	30	334	*798	-	-	747	-	-
Stage 1	0	0	-	312	339	-	-	-	-	-	-	-
Stage 2	0	0	-	446	419	-	-	-	-	-	-	-
Platoon blocked, %			1	1	1	1	1	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	*534	17	28	334	*798	-	-	747	-	-
Mov Cap-2 Maneuver	-	-	-	155	175	-	-	-	-	-	-	-
Stage 1	-	-	-	304	330	-	-	-	-	-	-	-
Stage 2	-	-	-	366	408	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	13		17.9		0.2		0.3					
HCM LOS	B		C									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	* 798	-	-	534	302	747	-	-				
HCM Lane V/C Ratio	0.026	-	-	0.157	0.079	0.026	-	-				
HCM Control Delay (s)	9.6	-	-	13	17.9	9.9	-	-				
HCM Lane LOS	A	-	-	B	C	A	-	-				
HCM 95th %tile Q(veh)	0.1	-	-	0.6	0.3	0.1	-	-				
Notes												
~: Volume exceeds capacity		\$: Delay exceeds 300s		+: Computation Not Defined					*: All major volume in platoon			

Intersection												
Int Delay, s/veh	6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↗		↕		↗	↗		↗	↗	↗
Traffic Vol, veh/h	0	0	140	15	0	45	19	810	14	44	943	51
Future Vol, veh/h	0	0	140	15	0	45	19	810	14	44	943	51
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	-	100	-	-	100	-	195
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	152	16	0	49	21	880	15	48	1025	55
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	-	-	1025	2155	2106	888	1080	0	0	895	0	0
Stage 1	-	-	-	930	930	-	-	-	-	-	-	-
Stage 2	-	-	-	1225	1176	-	-	-	-	-	-	-
Critical Hdwy	-	-	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	-	-	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	0	0	*246	~ 0	0	343	*369	-	-	758	-	-
Stage 1	0	0	-	321	346	-	-	-	-	-	-	-
Stage 2	0	0	-	163	189	-	-	-	-	-	-	-
Platoon blocked, %			1	1	1		1	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	*246	0	0	343	*369	-	-	758	-	-
Mov Cap-2 Maneuver	-	-	-	30	96	-	-	-	-	-	-	-
Stage 1	-	-	-	303	326	-	-	-	-	-	-	-
Stage 2	-	-	-	58	177	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	40.8		101.5		0.3		0.4					
HCM LOS	E		F									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)	* 369	-	-	246	95	758	-	-				
HCM Lane V/C Ratio	0.056	-	-	0.619	0.686	0.063	-	-				
HCM Control Delay (s)	15.3	-	-	40.8	101.5	10.1	-	-				
HCM Lane LOS	C	-	-	E	F	B	-	-				
HCM 95th %tile Q(veh)	0.2	-	-	3.7	3.4	0.2	-	-				
Notes												
~: Volume exceeds capacity		\$: Delay exceeds 300s		+: Computation Not Defined					*: All major volume in platoon			








Intersection												
Int Delay, s/veh	1.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↱		↕		↱	↱		↱	↱	↱
Traffic Vol, veh/h	0	0	105	2	0	20	64	844	7	18	654	56
Future Vol, veh/h	0	0	105	2	0	20	64	844	7	18	654	56
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	-	100	-	-	100	-	195
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	114	2	0	22	70	917	8	20	711	61

Major/Minor	Minor2		Minor1		Major1		Major2		Major2		Major2	
Conflicting Flow All	-	-	711	1900	1873	921	772	0	0	925	0	0
Stage 1	-	-	-	1061	1061	-	-	-	-	-	-	-
Stage 2	-	-	-	839	812	-	-	-	-	-	-	-
Critical Hdwy	-	-	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	-	-	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	0	0	*534	13	20	328	785	-	-	739	-	-
Stage 1	0	0	-	271	300	-	-	-	-	-	-	-
Stage 2	0	0	-	416	399	-	-	-	-	-	-	-
Platoon blocked, %			1	1	1		1	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	*534	10	18	328	785	-	-	739	-	-
Mov Cap-2 Maneuver	-	-	-	118	142	-	-	-	-	-	-	-
Stage 1	-	-	-	247	273	-	-	-	-	-	-	-
Stage 2	-	-	-	318	388	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	13.6		18.9		0.7		0.2	
HCM LOS	B		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	785	-	-	534	282	739	-
HCM Lane V/C Ratio	0.089	-	-	0.214	0.085	0.026	-
HCM Control Delay (s)	10	-	-	13.6	18.9	10	-
HCM Lane LOS	B	-	-	B	C	B	-
HCM 95th %tile Q(veh)	0.3	-	-	0.8	0.3	0.1	-

Notes												
-: Volume exceeds capacity			\$: Delay exceeds 300s			+: Computation Not Defined			*: All major volume in platoon			

Intersection												
Int Delay, s/veh	8.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	213	15	0	45	66	844	14	44	943	75
Future Vol, veh/h	0	0	213	15	0	45	66	844	14	44	943	75
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	-	100	-	-	100	-	195
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	232	16	0	49	72	917	15	48	1025	82

Major/Minor	Minor2	Minor1	Major1	Major2
Conflicting Flow All	-	-	1025 2347 2272	925 1107 0 0 932 0 0
Stage 1	-	-	1069 1069	- - - - - -
Stage 2	-	-	1278 1203	- - - - - -
Critical Hdwy	-	-	6.22 7.12 6.52	6.22 4.12 - - 4.12 - -
Critical Hdwy Stg 1	-	-	6.12 5.52	- - - - - -
Critical Hdwy Stg 2	-	-	6.12 5.52	- - - - - -
Follow-up Hdwy	-	-	3.318 3.518 4.018	3.318 2.218 - - 2.218 - -
Pot Cap-1 Maneuver	0	0	*246 0 0 326	*369 - - 734 - -
Stage 1	0	0	- 268 298	- - - - - -
Stage 2	0	0	- 122 168	- - - - - -
Platoon blocked, %		1	1 1	1 - - - - -
Mov Cap-1 Maneuver	-	-	*246 0 0 326	*369 - - 734 - -
Mov Cap-2 Maneuver	-	-	- ~ -85 57	- - - - - -
Stage 1	-	-	- 216 240	- - - - - -
Stage 2	-	-	- ~ 7 157	- - - - - -




Approach	EB	WB	NB	SB
HCM Control Delay, s	86.2	2.8	1.2	0.4
HCM LOS	F	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	* 369	-	-	246 +	734	-	-
HCM Lane V/C Ratio	0.194	-	-	0.941 -	0.065	-	-
HCM Control Delay (s)	17.1	-	-	86.2 2.8	10.2	-	-
HCM Lane LOS	C	-	-	F A	B	-	-
HCM 95th %tile Q(veh)	0.7	-	-	8.5 -	0.2	-	-

Notes			
-: Volume exceeds capacity	\$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection

Int Delay, s/veh 4.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	151	10	58	82	12	147
Future Vol, veh/h	151	10	58	82	12	147
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	83	42	78	79	75	93
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	182	24	74	104	16	158




Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	206
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	1365
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1365
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	3.3	10.7
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	804	-	-	1365	-
HCM Lane V/C Ratio	0.216	-	-	0.054	-
HCM Control Delay (s)	10.7	-	-	7.8	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.8	-	-	0.2	-

Intersection

Int Delay, s/veh 6.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	114	25	188	141	34	174
Future Vol, veh/h	114	25	188	141	34	174
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	89	86	86	87	52	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	128	29	219	162	65	181

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	157
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	1423
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1423
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	4.6	14.9
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	608	-	-	1423	-
HCM Lane V/C Ratio	0.406	-	-	0.154	-
HCM Control Delay (s)	14.9	-	-	8	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	2	-	-	0.5	-

Intersection												
Int Delay, s/veh	6.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	32	135	10	58	81	63	12	16	147	52	12	11
Future Vol, veh/h	32	135	10	58	81	63	12	16	147	52	12	11
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	83	42	78	79	92	75	92	93	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	35	163	24	74	103	68	16	17	158	57	13	12
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	171	0	0	187	0	0	543	564	175	618	542	137
Stage 1	-	-	-	-	-	-	245	245	-	285	285	-
Stage 2	-	-	-	-	-	-	298	319	-	333	257	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1406	-	-	1387	-	-	451	435	868	402	447	911
Stage 1	-	-	-	-	-	-	759	703	-	722	676	-
Stage 2	-	-	-	-	-	-	711	653	-	681	695	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1406	-	-	1387	-	-	406	398	868	297	409	911
Mov Cap-2 Maneuver	-	-	-	-	-	-	406	398	-	297	409	-
Stage 1	-	-	-	-	-	-	738	683	-	702	636	-
Stage 2	-	-	-	-	-	-	647	614	-	528	676	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	1.2			2.3			11.8			18.6		
HCM LOS							B			C		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	722	1406	-	-	1387	-	-	346				
HCM Lane V/C Ratio	0.265	0.025	-	-	0.054	-	-	0.236				
HCM Control Delay (s)	11.8	7.6	0	-	7.7	0	-	18.6				
HCM Lane LOS	B	A	A	-	A	A	-	C				
HCM 95th %tile Q(veh)	1.1	0.1	-	-	0.2	-	-	0.9				

Intersection												
Int Delay, s/veh	19.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	35	102	25	188	151	114	34	26	174	73	25	19
Future Vol, veh/h	35	102	25	188	151	114	34	26	174	73	25	19
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	83	42	78	79	92	75	92	93	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	38	123	60	241	191	124	45	28	187	79	27	21
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	315	0	0	183	0	0	988	1026	153	1072	994	253
Stage 1	-	-	-	-	-	-	229	229	-	735	735	-
Stage 2	-	-	-	-	-	-	759	797	-	337	259	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1245	-	-	1392	-	-	226	235	893	198	245	786
Stage 1	-	-	-	-	-	-	774	715	-	411	425	-
Stage 2	-	-	-	-	-	-	399	399	-	677	694	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1245	-	-	1392	-	-	160	179	893	113	186	786
Mov Cap-2 Maneuver	-	-	-	-	-	-	160	179	-	113	186	-
Stage 1	-	-	-	-	-	-	748	691	-	397	334	-
Stage 2	-	-	-	-	-	-	281	314	-	496	670	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	1.4			3.5			29.2			104.9		
HCM LOS							D			F		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	401	1245	-	-	1392	-	-	145				
HCM Lane V/C Ratio	0.65	0.031	-	-	0.173	-	-	0.877				
HCM Control Delay (s)	29.2	8	0	-	8.1	0	-	104.9				
HCM Lane LOS	D	A	A	-	A	A	-	F				
HCM 95th %tile Q(veh)	4.4	0.1	-	-	0.6	-	-	5.9				

Intersection	
Intersection Delay, s/veh	9.6
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	33	139	10	58	81	63	12	20	147	56	14	11
Future Vol, veh/h	33	139	10	58	81	63	12	20	147	56	14	11
Peak Hour Factor	0.92	0.89	0.86	0.86	0.87	0.92	0.52	0.92	0.96	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	36	156	12	67	93	68	23	22	153	61	15	12
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	9.9	9.9	9.3	9.2
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	7%	18%	29%	69%
Vol Thru, %	11%	76%	40%	17%
Vol Right, %	82%	5%	31%	14%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	179	182	202	81
LT Vol	12	33	58	56
Through Vol	20	139	81	14
RT Vol	147	10	63	11
Lane Flow Rate	198	204	229	88
Geometry Grp	1	1	1	1
Degree of Util (X)	0.253	0.277	0.302	0.129
Departure Headway (Hd)	4.604	4.9	4.743	5.276
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	772	727	751	673
Service Time	2.677	2.975	2.815	3.364
HCM Lane V/C Ratio	0.256	0.281	0.305	0.131
HCM Control Delay	9.3	9.9	9.9	9.2
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	1	1.1	1.3	0.4

Intersection	
Intersection Delay, s/veh	16.9
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	36	113	25	188	151	114	34	30	174	84	31	19
Future Vol, veh/h	36	113	25	188	151	114	34	30	174	84	31	19
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	39	123	27	204	164	124	37	33	189	91	34	21
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	11.8	22.6	12.8	11.8
HCM LOS	B	C	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	14%	21%	42%	63%
Vol Thru, %	13%	65%	33%	23%
Vol Right, %	73%	14%	25%	14%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	238	174	453	134
LT Vol	34	36	188	84
Through Vol	30	113	151	31
RT Vol	174	25	114	19
Lane Flow Rate	259	189	492	146
Geometry Grp	1	1	1	1
Degree of Util (X)	0.411	0.318	0.741	0.263
Departure Headway (Hd)	5.829	6.047	5.417	6.503
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	621	598	660	555
Service Time	3.829	4.047	3.503	4.514
HCM Lane V/C Ratio	0.417	0.316	0.745	0.263
HCM Control Delay	12.8	11.8	22.6	11.8
HCM Lane LOS	B	B	C	B
HCM 95th-tile Q	2	1.4	6.6	1

Intersection												
Int Delay, s/veh	6.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	32	155	12	66	92	63	14	16	167	52	12	11
Future Vol, veh/h	32	155	12	66	92	63	14	16	167	52	12	11
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	35	168	13	72	100	68	15	17	182	57	13	12
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	168	0	0	181	0	0	536	557	175	622	529	134
Stage 1	-	-	-	-	-	-	245	245	-	278	278	-
Stage 2	-	-	-	-	-	-	291	312	-	344	251	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1410	-	-	1394	-	-	455	439	868	399	455	915
Stage 1	-	-	-	-	-	-	759	703	-	728	680	-
Stage 2	-	-	-	-	-	-	717	658	-	671	699	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1410	-	-	1394	-	-	410	403	868	286	417	915
Mov Cap-2 Maneuver	-	-	-	-	-	-	410	403	-	286	417	-
Stage 1	-	-	-	-	-	-	738	683	-	708	641	-
Stage 2	-	-	-	-	-	-	654	620	-	503	679	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	1.2			2.3			11.8			19.1		
HCM LOS							B			C		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	740	1410	-	-	1394	-	-	337				
HCM Lane V/C Ratio	0.289	0.025	-	-	0.051	-	-	0.242				
HCM Control Delay (s)	11.8	7.6	0	-	7.7	0	-	19.1				
HCM Lane LOS	B	A	A	-	A	A	-	C				
HCM 95th %tile Q(veh)	1.2	0.1	-	-	0.2	-	-	0.9				

Intersection												
Int Delay, s/veh	19.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	35	117	28	214	170	114	39	26	197	73	25	19
Future Vol, veh/h	35	117	28	214	170	114	39	26	197	73	25	19
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	38	127	30	233	185	124	42	28	214	79	27	21
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	309	0	0	157	0	0	955	993	142	1052	946	247
Stage 1	-	-	-	-	-	-	218	218	-	713	713	-
Stage 2	-	-	-	-	-	-	737	775	-	339	233	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1252	-	-	1423	-	-	238	245	906	204	262	792
Stage 1	-	-	-	-	-	-	784	723	-	423	435	-
Stage 2	-	-	-	-	-	-	410	408	-	676	712	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1252	-	-	1423	-	-	172	189	906	114	203	792
Mov Cap-2 Maneuver	-	-	-	-	-	-	172	189	-	114	203	-
Stage 1	-	-	-	-	-	-	758	699	-	409	348	-
Stage 2	-	-	-	-	-	-	294	326	-	479	689	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	1.5			3.4			25.8			98		
HCM LOS							D			F		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	450	1252	-	-	1423	-	-	149				
HCM Lane V/C Ratio	0.633	0.03	-	-	0.163	-	-	0.854				
HCM Control Delay (s)	25.8	8	0	-	8	0	-	98				
HCM Lane LOS	D	A	A	-	A	A	-	F				
HCM 95th %tile Q(veh)	4.3	0.1	-	-	0.6	-	-	5.7				

Intersection	
Intersection Delay, s/veh	10
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	33	159	12	66	92	63	14	20	167	56	14	11
Future Vol, veh/h	33	159	12	66	92	63	14	20	167	56	14	11
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	36	173	13	72	100	68	15	22	182	61	15	12
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	10.3	10.3	9.7	9.3
HCM LOS	B	B	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	7%	16%	30%	69%
Vol Thru, %	10%	78%	42%	17%
Vol Right, %	83%	6%	29%	14%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	201	204	221	81
LT Vol	14	33	66	56
Through Vol	20	159	92	14
RT Vol	167	12	63	11
Lane Flow Rate	218	222	240	88
Geometry Grp	1	1	1	1
Degree of Util (X)	0.284	0.306	0.323	0.134
Departure Headway (Hd)	4.684	4.972	4.846	5.498
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	758	714	733	656
Service Time	2.77	3.064	2.937	3.498
HCM Lane V/C Ratio	0.288	0.311	0.327	0.134
HCM Control Delay	9.7	10.3	10.3	9.3
HCM Lane LOS	A	B	B	A
HCM 95th-tile Q	1.2	1.3	1.4	0.5

Intersection	
Intersection Delay, s/veh	23.2
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	36	128	28	214	170	114	39	30	197	84	31	19
Future Vol, veh/h	36	128	28	214	170	114	39	30	197	84	31	19
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	39	139	30	233	185	124	42	33	214	91	34	21
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	13.1	34.3	15	12.7
HCM LOS	B	D	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	15%	19%	43%	63%
Vol Thru, %	11%	67%	34%	23%
Vol Right, %	74%	15%	23%	14%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	266	192	498	134
LT Vol	39	36	214	84
Through Vol	30	128	170	31
RT Vol	197	28	114	19
Lane Flow Rate	289	209	541	146
Geometry Grp	1	1	1	1
Degree of Util (X)	0.491	0.369	0.862	0.28
Departure Headway (Hd)	6.119	6.364	5.736	6.928
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	587	563	633	517
Service Time	4.172	4.421	3.779	4.992
HCM Lane V/C Ratio	0.492	0.371	0.855	0.282
HCM Control Delay	15	13.1	34.3	12.7
HCM Lane LOS	B	B	D	B
HCM 95th-tile Q	2.7	1.7	9.8	1.1

MOVEMENT SUMMARY

 **Site: 1 [2020 Existing AM]**

Main Street & SH-133
Site Category: (None)
Roundabout

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance ft	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed mph
South: SH-133												
3	L2	53	3.0	0.384	9.3	LOS A	1.4	37.0	0.47	0.49	0.53	30.3
8	T1	536	3.0	0.384	9.2	LOS A	1.4	37.0	0.45	0.48	0.52	30.2
18	R2	25	3.0	0.384	9.1	LOS A	1.4	35.4	0.44	0.47	0.50	29.5
Approach		614	3.0	0.384	9.2	LOS A	1.4	37.0	0.46	0.48	0.52	30.2
East: Main Street												
1	L2	61	3.0	0.321	10.2	LOS B	1.0	26.3	0.53	0.57	0.65	32.0
6	T1	54	3.0	0.321	10.2	LOS B	1.0	26.3	0.53	0.57	0.65	31.9
16	R2	83	3.0	0.321	10.2	LOS B	1.0	26.3	0.53	0.57	0.65	31.0
Approach		198	3.0	0.321	10.2	LOS B	1.0	26.3	0.53	0.57	0.65	31.5
North: SH-133												
7	L2	145	3.0	0.325	7.1	LOS A	1.1	28.5	0.29	0.20	0.29	30.5
4	T1	415	3.0	0.325	7.1	LOS A	1.1	28.5	0.28	0.20	0.28	30.8
14	R2	68	3.0	0.325	7.1	LOS A	1.0	26.8	0.27	0.19	0.27	30.3
Approach		628	3.0	0.325	7.1	LOS A	1.1	28.5	0.28	0.20	0.28	30.7
West: Main Street												
5	L2	210	3.0	0.513	13.0	LOS B	2.7	68.2	0.57	0.76	0.98	22.5
2	T1	68	3.0	0.513	13.0	LOS B	2.7	68.2	0.57	0.76	0.98	22.1
12	R2	82	3.0	0.513	13.0	LOS B	2.7	68.2	0.57	0.76	0.98	21.6
Approach		360	3.0	0.513	13.0	LOS B	2.7	68.2	0.57	0.76	0.98	22.2
All Vehicles		1800	3.0	0.513	9.3	LOS A	2.7	68.2	0.43	0.45	0.54	28.4

Site Level of Service (LOS) Method: Delay & v/c (HCM 2010). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 2010).

Roundabout Capacity Model: US HCM 2010.

HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.

Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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MOVEMENT SUMMARY

 **Site: 1 [2020 Existing PM]**

Main Street & SH-133
Site Category: (None)
Roundabout

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance ft	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed mph
South: SH-133												
3	L2	64	3.0	0.298	8.1	LOS A	0.9	23.9	0.45	0.44	0.45	30.5
8	T1	363	3.0	0.298	8.1	LOS A	0.9	23.9	0.43	0.43	0.43	30.6
18	R2	37	3.0	0.298	8.0	LOS A	0.9	22.7	0.42	0.42	0.42	30.0
Approach		464	3.0	0.298	8.1	LOS A	0.9	23.9	0.44	0.43	0.44	30.5
East: Main Street												
1	L2	97	3.0	0.543	13.7	LOS B	3.0	77.7	0.59	0.80	1.05	22.6
6	T1	146	3.0	0.543	13.7	LOS B	3.0	77.7	0.59	0.80	1.05	22.2
16	R2	139	3.0	0.543	13.7	LOS B	3.0	77.7	0.59	0.80	1.05	21.7
Approach		382	3.0	0.543	13.7	LOS B	3.0	77.7	0.59	0.80	1.05	22.1
North: SH-133												
7	L2	179	3.0	0.534	11.5	LOS B	3.5	88.8	0.49	0.56	0.72	29.0
4	T1	565	3.0	0.534	11.4	LOS B	3.5	88.8	0.48	0.55	0.71	29.1
14	R2	187	3.0	0.534	11.3	LOS B	3.4	86.1	0.46	0.53	0.70	28.6
Approach		932	3.0	0.534	11.4	LOS B	3.5	88.8	0.48	0.55	0.71	29.0
West: Main Street												
5	L2	190	3.0	0.560	16.2	LOS C	2.8	72.7	0.65	0.88	1.19	21.8
2	T1	89	3.0	0.560	16.2	LOS C	2.8	72.7	0.65	0.88	1.19	21.5
12	R2	55	3.0	0.560	16.2	LOS C	2.8	72.7	0.65	0.88	1.19	21.0
Approach		335	3.0	0.560	16.2	LOS C	2.8	72.7	0.65	0.88	1.19	21.6
All Vehicles		2112	3.0	0.560	11.9	LOS B	3.5	88.8	0.51	0.62	0.79	26.4

Site Level of Service (LOS) Method: Delay & v/c (HCM 2010). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 2010).

Roundabout Capacity Model: US HCM 2010.

HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.

Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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MOVEMENT SUMMARY

 **Site: 1 [2022 Background AM]**

Main Street & SH-133
Site Category: (None)
Roundabout

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance ft	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed mph
South: SH-133												
3	L2	87	3.0	0.457	11.4	LOS B	2.2	56.1	0.55	0.65	0.82	29.2
8	T1	561	3.0	0.457	11.3	LOS B	2.2	56.1	0.53	0.64	0.81	29.4
18	R2	18	3.0	0.457	11.2	LOS B	2.1	54.5	0.52	0.63	0.80	28.8
Approach		666	3.0	0.457	11.3	LOS B	2.2	56.1	0.54	0.64	0.81	29.3
East: Main Street												
1	L2	61	3.0	0.436	13.1	LOS B	1.7	44.1	0.61	0.75	0.94	22.8
6	T1	86	3.0	0.436	13.1	LOS B	1.7	44.1	0.61	0.75	0.94	22.4
16	R2	107	3.0	0.436	13.1	LOS B	1.7	44.1	0.61	0.75	0.94	21.8
Approach		253	3.0	0.436	13.1	LOS B	1.7	44.1	0.61	0.75	0.94	22.2
North: SH-133												
7	L2	229	3.0	0.406	8.6	LOS A	1.5	38.5	0.37	0.30	0.37	29.6
4	T1	450	3.0	0.406	8.6	LOS A	1.5	38.5	0.36	0.29	0.36	30.2
14	R2	70	3.0	0.406	8.5	LOS A	1.4	36.4	0.35	0.29	0.35	29.7
Approach		749	3.0	0.406	8.6	LOS A	1.5	38.5	0.36	0.29	0.36	30.0
West: Main Street												
5	L2	234	3.0	0.630	17.8	LOS C	4.0	101.5	0.66	0.96	1.35	21.5
2	T1	84	3.0	0.630	17.8	LOS C	4.0	101.5	0.66	0.96	1.35	21.1
12	R2	88	3.0	0.630	17.8	LOS C	4.0	101.5	0.66	0.96	1.35	20.6
Approach		405	3.0	0.630	17.8	LOS C	4.0	101.5	0.66	0.96	1.35	21.2
All Vehicles		2074	3.0	0.630	11.8	LOS B	4.0	101.5	0.51	0.59	0.77	26.5

Site Level of Service (LOS) Method: Delay & v/c (HCM 2010). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 2010).

Roundabout Capacity Model: US HCM 2010.

HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.

Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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MOVEMENT SUMMARY

 **Site: 1 [2022 Background PM]**

Main Street & SH-133
Site Category: (None)
Roundabout

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back Vehicles veh	Queue Distance ft	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed mph
South: SH-133												
3	L2	120	3.0	0.413	11.3	LOS B	1.7	43.9	0.56	0.64	0.80	28.9
8	T1	404	3.0	0.413	11.1	LOS B	1.7	43.9	0.54	0.63	0.78	29.3
18	R2	29	3.0	0.413	11.0	LOS B	1.7	42.6	0.54	0.62	0.78	28.8
Approach		553	3.0	0.413	11.2	LOS B	1.7	43.9	0.55	0.63	0.79	29.2
East: Main Street												
1	L2	97	3.0	0.751	24.2	LOS C	6.4	164.6	0.74	1.22	1.83	20.6
6	T1	209	3.0	0.751	24.2	LOS C	6.4	164.6	0.74	1.22	1.83	20.2
16	R2	177	3.0	0.751	24.2	LOS C	6.4	164.6	0.74	1.22	1.83	19.8
Approach		483	3.0	0.751	24.2	LOS C	6.4	164.6	0.74	1.22	1.83	20.1
North: SH-133												
7	L2	330	3.0	0.724	19.2	LOS C	8.3	211.4	0.69	1.04	1.54	26.1
4	T1	636	3.0	0.724	19.0	LOS C	8.3	211.4	0.68	1.02	1.53	26.5
14	R2	190	3.0	0.724	18.8	LOS C	8.2	209.2	0.67	1.01	1.52	26.2
Approach		1157	3.0	0.724	19.0	LOS C	8.3	211.4	0.68	1.03	1.53	26.4
West: Main Street												
5	L2	217	3.0	0.795	33.2	LOS D	6.0	152.6	0.83	1.37	2.19	18.8
2	T1	112	3.0	0.795	33.2	LOS D	6.0	152.6	0.83	1.37	2.19	18.6
12	R2	76	3.0	0.795	33.2	LOS D	6.0	152.6	0.83	1.37	2.19	18.2
Approach		405	3.0	0.795	33.2	LOS D	6.0	152.6	0.83	1.37	2.19	18.6
All Vehicles		2598	3.0	0.795	20.5	LOS C	8.3	211.4	0.69	1.03	1.53	23.9

Site Level of Service (LOS) Method: Delay & v/c (HCM 2010). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 2010).

Roundabout Capacity Model: US HCM 2010.

HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.

Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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MOVEMENT SUMMARY

 **Site: 1 [2022 Total AM]**

Main Street & SH-133
Site Category: (None)
Roundabout

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance ft	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed mph
South: SH-133												
3	L2	87	3.0	0.479	12.1	LOS B	2.4	61.4	0.57	0.72	0.89	23.1
8	T1	577	3.0	0.479	12.0	LOS B	2.4	61.4	0.55	0.71	0.88	22.8
18	R2	18	3.0	0.479	11.9	LOS B	2.3	59.8	0.54	0.70	0.87	22.4
Approach		683	3.0	0.479	12.0	LOS B	2.4	61.4	0.56	0.71	0.88	22.9
East: Main Street												
1	L2	61	3.0	0.501	15.0	LOS B	2.2	56.4	0.64	0.78	1.09	28.0
6	T1	86	3.0	0.501	15.0	LOS B	2.2	56.4	0.64	0.78	1.09	27.8
16	R2	139	3.0	0.501	15.0	LOS B	2.2	56.4	0.64	0.78	1.09	27.1
Approach		286	3.0	0.501	15.0	LOS B	2.2	56.4	0.64	0.78	1.09	27.5
North: SH-133												
7	L2	251	3.0	0.423	8.9	LOS A	1.6	40.9	0.38	0.31	0.38	23.4
4	T1	459	3.0	0.423	8.8	LOS A	1.6	40.9	0.36	0.30	0.36	23.5
14	R2	70	3.0	0.423	8.8	LOS A	1.5	38.7	0.36	0.29	0.36	23.1
Approach		779	3.0	0.423	8.9	LOS A	1.6	40.9	0.37	0.30	0.37	23.4
West: Main Street												
5	L2	242	3.0	0.658	19.3	LOS C	4.3	110.5	0.68	0.91	1.45	27.9
2	T1	84	3.0	0.658	19.3	LOS C	4.3	110.5	0.68	0.91	1.45	27.8
12	R2	88	3.0	0.658	19.3	LOS C	4.3	110.5	0.68	0.91	1.45	27.1
Approach		414	3.0	0.658	19.3	LOS C	4.3	110.5	0.68	0.91	1.45	27.7
All Vehicles		2162	3.0	0.658	12.7	LOS B	4.3	110.5	0.52	0.61	0.83	24.4

Site Level of Service (LOS) Method: Delay & v/c (HCM 2010). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 2010).

Roundabout Capacity Model: US HCM 2010.

HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.

Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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Organisation: KIMLEY-HORN & ASSOCIATES INC | Processed: Thursday, March 12, 2020 8:25:33 AM

Project: K:\DEN_TPTO\096671002 - Carbondale Marketplace Lot 5\Engineering\Analysis\Main Street & SH-133_Sidra 8.sip8

MOVEMENT SUMMARY

 **Site: 1 [2022 Total PM]**

Main Street & SH-133
Site Category: (None)
Roundabout

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance ft	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed mph
South: SH-133												
3	L2	120	3.0	0.453	12.8	LOS B	2.0	51.1	0.60	0.71	0.93	28.4
8	T1	422	3.0	0.453	12.6	LOS B	2.0	51.1	0.58	0.69	0.92	28.8
18	R2	29	3.0	0.453	12.5	LOS B	1.9	49.8	0.57	0.69	0.91	28.3
Approach		571	3.0	0.453	12.6	LOS B	2.0	51.1	0.58	0.70	0.92	28.7
East: Main Street												
1	L2	97	3.0	0.829	31.7	LOS D	8.8	224.0	0.80	1.47	2.34	19.2
6	T1	209	3.0	0.829	31.7	LOS D	8.8	224.0	0.80	1.47	2.34	18.9
16	R2	212	3.0	0.829	31.7	LOS D	8.8	224.0	0.80	1.47	2.34	18.5
Approach		517	3.0	0.829	31.7	LOS D	8.8	224.0	0.80	1.47	2.34	18.8
North: SH-133												
7	L2	391	3.0	0.777	22.4	LOS C	10.6	272.5	0.75	1.19	1.82	25.1
4	T1	660	3.0	0.777	22.1	LOS C	10.6	272.5	0.73	1.17	1.81	25.6
14	R2	190	3.0	0.777	22.0	LOS C	10.6	270.8	0.73	1.16	1.80	25.3
Approach		1241	3.0	0.777	22.2	LOS C	10.6	272.5	0.74	1.17	1.81	25.4
West: Main Street												
5	L2	241	3.0	0.895	48.3	LOS E	8.8	226.5	0.91	1.75	3.08	16.8
2	T1	112	3.0	0.895	48.3	LOS E	8.8	226.5	0.91	1.75	3.08	16.5
12	R2	76	3.0	0.895	48.3	LOS E	8.8	226.5	0.91	1.75	3.08	16.2
Approach		429	3.0	0.895	48.3	LOS E	8.8	226.5	0.91	1.75	3.08	16.6
All Vehicles		2759	3.0	0.895	26.1	LOS D	10.6	272.5	0.74	1.22	1.92	22.6

Site Level of Service (LOS) Method: Delay & v/c (HCM 2010). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 2010).

Roundabout Capacity Model: US HCM 2010.

HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.

Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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Organisation: KIMLEY-HORN & ASSOCIATES INC | Processed: Thursday, March 12, 2020 8:26:56 AM

Project: K:\DEN_TPTO\096671002 - Carbondale Marketplace Lot 5\Engineering\Analysis\Main Street & SH-133_Sidra 8.sip8

MOVEMENT SUMMARY

 **Site: 1 [2040 Background AM]**

Main Street & SH-133
Site Category: (None)
Roundabout

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance ft	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed mph
South: SH-133												
3	L2	93	3.0	0.534	13.7	LOS B	3.0	77.2	0.60	0.76	1.04	28.4
8	T1	633	3.0	0.534	13.5	LOS B	3.0	77.2	0.59	0.75	1.03	28.5
18	R2	22	3.0	0.534	13.4	LOS B	3.0	75.6	0.58	0.74	1.02	28.0
Approach		748	3.0	0.534	13.6	LOS B	3.0	77.2	0.59	0.75	1.03	28.5
East: Main Street												
1	L2	68	3.0	0.517	16.2	LOS C	2.3	57.8	0.68	0.87	1.16	22.1
6	T1	92	3.0	0.517	16.2	LOS C	2.3	57.8	0.68	0.87	1.16	21.7
16	R2	117	3.0	0.517	16.2	LOS C	2.3	57.8	0.68	0.87	1.16	21.2
Approach		278	3.0	0.517	16.2	LOS C	2.3	57.8	0.68	0.87	1.16	21.6
North: SH-133												
7	L2	248	3.0	0.459	9.6	LOS A	1.8	46.1	0.41	0.35	0.41	29.2
4	T1	505	3.0	0.459	9.6	LOS A	1.8	46.1	0.40	0.34	0.40	29.8
14	R2	79	3.0	0.459	9.5	LOS A	1.7	43.6	0.39	0.33	0.39	29.4
Approach		833	3.0	0.459	9.6	LOS A	1.8	46.1	0.40	0.34	0.40	29.6
West: Main Street												
5	L2	261	3.0	0.747	25.1	LOS D	5.9	151.0	0.75	1.21	1.83	20.1
2	T1	93	3.0	0.747	25.1	LOS D	5.9	151.0	0.75	1.21	1.83	19.8
12	R2	99	3.0	0.747	25.1	LOS D	5.9	151.0	0.75	1.21	1.83	19.4
Approach		453	3.0	0.747	25.1	LOS D	5.9	151.0	0.75	1.21	1.83	19.9
All Vehicles		2312	3.0	0.747	14.7	LOS B	5.9	151.0	0.56	0.71	0.98	25.7

Site Level of Service (LOS) Method: Delay & v/c (HCM 2010). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 2010).

Roundabout Capacity Model: US HCM 2010.

HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.

Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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Organisation: KIMLEY-HORN & ASSOCIATES INC | Processed: Wednesday, March 11, 2020 11:24:37 AM

Project: K:\DEN_TPTO\096671002 - Carbondale Marketplace Lot 5\Engineering\Analysis\Main Street & SH-133_Sidra 8.sip8

MOVEMENT SUMMARY

 **Site: 1 [2040 Background PM]**

Main Street & SH-133
Site Category: (None)
Roundabout

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance ft	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed mph
South: SH-133												
3	L2	128	3.0	0.481	13.3	LOS B	2.3	57.9	0.60	0.73	0.98	28.3
8	T1	453	3.0	0.481	13.1	LOS B	2.3	57.9	0.59	0.72	0.96	28.6
18	R2	35	3.0	0.481	12.9	LOS B	2.2	56.6	0.58	0.71	0.96	28.1
Approach		616	3.0	0.481	13.1	LOS B	2.3	57.9	0.59	0.72	0.97	28.5
East: Main Street												
1	L2	110	3.0	0.881	39.0	LOS E	10.8	277.7	0.85	1.70	2.84	18.1
6	T1	227	3.0	0.881	39.0	LOS E	10.8	277.7	0.85	1.70	2.84	17.9
16	R2	197	3.0	0.881	39.0	LOS E	10.8	277.7	0.85	1.70	2.84	17.5
Approach		534	3.0	0.881	39.0	LOS E	10.8	277.7	0.85	1.70	2.84	17.8
North: SH-133												
7	L2	354	3.0	0.826	26.9	LOS D	12.7	326.0	0.81	1.36	2.19	24.1
4	T1	711	3.0	0.826	26.7	LOS D	12.7	326.0	0.80	1.35	2.18	24.4
14	R2	215	3.0	0.826	26.5	LOS D	12.7	325.3	0.79	1.34	2.17	24.1
Approach		1280	3.0	0.826	26.7	LOS D	12.7	326.0	0.80	1.35	2.18	24.2
West: Main Street												
5	L2	242	3.0	0.957	61.0	LOS F	12.1	310.1	0.95	2.10	3.95	15.4
2	T1	124	3.0	0.957	61.0	LOS F	12.1	310.1	0.95	2.10	3.95	15.2
12	R2	84	3.0	0.957	61.0	LOS F	12.1	310.1	0.95	2.10	3.95	14.9
Approach		450	3.0	0.957	61.0	LOS F	12.1	310.1	0.95	2.10	3.95	15.2
All Vehicles		2880	3.0	0.957	31.4	LOS D	12.7	326.0	0.79	1.40	2.32	21.5

Site Level of Service (LOS) Method: Delay & v/c (HCM 2010). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 2010).

Roundabout Capacity Model: US HCM 2010.

HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.

Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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Organisation: KIMLEY-HORN & ASSOCIATES INC | Processed: Wednesday, March 11, 2020 11:26:14 AM

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MOVEMENT SUMMARY

 **Site: 1 [2040 Total AM]**

Main Street & SH-133
Site Category: (None)
Roundabout

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance ft	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed mph
South: SH-133												
3	L2	93	3.0	0.558	14.7	LOS B	3.3	83.7	0.62	0.80	1.12	28.1
8	T1	649	3.0	0.558	14.5	LOS B	3.3	83.7	0.61	0.79	1.11	28.2
18	R2	22	3.0	0.558	14.3	LOS B	3.2	82.1	0.60	0.78	1.10	27.7
Approach		764	3.0	0.558	14.5	LOS B	3.3	83.7	0.61	0.79	1.11	28.2
East: Main Street												
1	L2	68	3.0	0.588	19.0	LOS C	2.9	73.6	0.71	0.97	1.34	21.5
6	T1	92	3.0	0.588	19.0	LOS C	2.9	73.6	0.71	0.97	1.34	21.1
16	R2	150	3.0	0.588	19.0	LOS C	2.9	73.6	0.71	0.97	1.34	20.7
Approach		311	3.0	0.588	19.0	LOS C	2.9	73.6	0.71	0.97	1.34	21.0
North: SH-133												
7	L2	270	3.0	0.476	9.9	LOS A	2.1	52.8	0.42	0.37	0.45	29.1
4	T1	514	3.0	0.476	9.9	LOS A	2.1	52.8	0.40	0.36	0.43	29.7
14	R2	79	3.0	0.476	9.8	LOS A	2.0	50.2	0.40	0.35	0.43	29.2
Approach		863	3.0	0.476	9.9	LOS A	2.1	52.8	0.41	0.36	0.44	29.5
West: Main Street												
5	L2	270	3.0	0.778	28.0	LOS D	6.5	167.5	0.78	1.30	2.01	19.6
2	T1	93	3.0	0.778	28.0	LOS D	6.5	167.5	0.78	1.30	2.01	19.3
12	R2	99	3.0	0.778	28.0	LOS D	6.5	167.5	0.78	1.30	2.01	18.9
Approach		462	3.0	0.778	28.0	LOS D	6.5	167.5	0.78	1.30	2.01	19.4
All Vehicles		2400	3.0	0.778	16.0	LOS C	6.5	167.5	0.58	0.76	1.07	25.3

Site Level of Service (LOS) Method: Delay & v/c (HCM 2010). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 2010).

Roundabout Capacity Model: US HCM 2010.

HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.

Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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Organisation: KIMLEY-HORN & ASSOCIATES INC | Processed: Thursday, March 12, 2020 8:28:02 AM

Project: K:\DEN_TPTO\096671002 - Carbondale Marketplace Lot 5\Engineering\Analysis\Main Street & SH-133_Sidra 8.sip8

MOVEMENT SUMMARY

 **Site: 1 [2040 Total AM + RT Lanes]**

Main Street & SH-133
Site Category: (None)
Roundabout

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance ft	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed mph
South: SH-133												
3	L2	93	3.0	0.558	14.7	LOS B	3.3	83.7	0.62	0.80	1.12	28.1
8	T1	649	3.0	0.558	14.5	LOS B	3.3	83.7	0.61	0.79	1.11	28.2
18	R2	22	3.0	0.558	14.3	LOS B	3.2	82.1	0.60	0.78	1.10	27.7
Approach		764	3.0	0.558	14.5	LOS B	3.3	83.7	0.61	0.79	1.11	28.2
East: Main Street												
1	L2	68	3.0	0.304	11.3	LOS B	0.9	23.7	0.60	0.66	0.74	23.1
6	T1	92	3.0	0.304	11.3	LOS B	0.9	23.7	0.60	0.66	0.74	22.7
16	R2	150	3.0	0.299	11.7	LOS B	0.9	23.8	0.63	0.68	0.75	22.2
Approach		311	3.0	0.304	11.5	LOS B	0.9	23.8	0.61	0.67	0.75	22.5
North: SH-133												
7	L2	270	3.0	0.476	9.9	LOS A	2.1	52.8	0.42	0.37	0.45	29.1
4	T1	514	3.0	0.476	9.9	LOS A	2.1	52.8	0.40	0.36	0.43	29.7
14	R2	79	3.0	0.476	9.8	LOS A	2.0	50.2	0.40	0.35	0.43	29.2
Approach		863	3.0	0.476	9.9	LOS A	2.1	52.8	0.41	0.36	0.44	29.5
West: Main Street												
5	L2	270	3.0	0.612	18.2	LOS C	3.4	87.7	0.68	0.96	1.34	21.3
2	T1	93	3.0	0.612	18.2	LOS C	3.4	87.7	0.68	0.96	1.34	21.0
12	R2	99	3.0	0.174	8.5	LOS A	0.5	12.2	0.53	0.53	0.53	22.9
Approach		462	3.0	0.612	16.1	LOS C	3.4	87.7	0.64	0.86	1.16	21.5
All Vehicles		2400	3.0	0.612	12.8	LOS B	3.4	87.7	0.55	0.63	0.83	26.2

Site Level of Service (LOS) Method: Delay & v/c (HCM 2010). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 2010).

Roundabout Capacity Model: US HCM 2010.

HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.

Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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Organisation: KIMLEY-HORN & ASSOCIATES INC | Processed: Thursday, March 12, 2020 8:30:04 AM

Project: K:\DEN_TPTO\096671002 - Carbondale Marketplace Lot 5\Engineering\Analysis\Main Street & SH-133_Sidra 8.sip8

MOVEMENT SUMMARY

 **Site: 1 [2040 Total PM]**

Main Street & SH-133
Site Category: (None)
Roundabout

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance ft	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed mph
South: SH-133												
3	L2	128	3.0	0.522	15.1	LOS C	2.6	65.7	0.63	0.79	1.10	27.7
8	T1	471	3.0	0.522	14.8	LOS B	2.6	65.7	0.62	0.77	1.09	28.0
18	R2	35	3.0	0.522	14.6	LOS B	2.5	64.5	0.61	0.76	1.08	27.6
Approach		634	3.0	0.522	14.9	LOS B	2.6	65.7	0.62	0.77	1.09	27.9
East: Main Street												
1	L2	110	3.0	0.961	54.1	LOS F	16.3	418.1	0.92	1.82	4.00	19.9
6	T1	227	3.0	0.961	54.1	LOS F	16.3	418.1	0.92	1.82	4.00	19.8
16	R2	232	3.0	0.961	54.1	LOS F	16.3	418.1	0.92	1.82	4.00	19.5
Approach		568	3.0	0.961	54.1	LOS F	16.3	418.1	0.92	1.82	4.00	19.7
North: SH-133												
7	L2	415	3.0	0.881	33.1	LOS D	16.9	431.7	0.89	1.60	2.69	22.6
4	T1	735	3.0	0.881	32.7	LOS D	16.9	432.5	0.88	1.59	2.68	22.9
14	R2	215	3.0	0.881	32.5	LOS D	16.9	432.5	0.87	1.58	2.68	22.6
Approach		1365	3.0	0.881	32.8	LOS D	16.9	432.5	0.88	1.59	2.68	22.7
West: Main Street												
5	L2	266	3.0	1.071	93.9	LOS F	21.5	550.2	1.00	3.00	6.29	12.6
2	T1	124	3.0	1.071	93.9	LOS F	21.5	550.2	1.00	3.00	6.29	12.5
12	R2	84	3.0	1.071	93.9	LOS F	21.5	550.2	1.00	3.00	6.29	12.3
Approach		474	3.0	1.071	93.9	LOS F	21.5	550.2	1.00	3.00	6.29	12.5
All Vehicles		3041	3.0	1.071	42.6	LOS E	21.5	550.2	0.85	1.68	3.16	20.3

Site Level of Service (LOS) Method: Delay & v/c (HCM 2010). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 2010).

Roundabout Capacity Model: US HCM 2010.

HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.

Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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Project: K:\DEN_TPTO\096671002 - Carbondale Marketplace Lot 5\Engineering\Analysis\Main Street & SH-133_Sidra 8.sip8

MOVEMENT SUMMARY

 **Site: 1 [2040 Total PM + RT Lanes]**

Main Street & SH-133
Site Category: (None)
Roundabout

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance ft	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed mph
South: SH-133												
3	L2	128	3.0	0.527	15.4	LOS C	2.6	66.6	0.64	0.79	1.11	27.6
8	T1	471	3.0	0.527	15.0	LOS C	2.6	66.6	0.63	0.78	1.10	27.9
18	R2	35	3.0	0.527	14.8	LOS B	2.6	65.4	0.62	0.77	1.09	27.5
Approach		634	3.0	0.527	15.1	LOS C	2.6	66.6	0.63	0.78	1.10	27.8
East: Main Street												
1	L2	110	3.0	0.573	16.9	LOS C	2.9	75.4	0.66	0.83	1.24	29.2
6	T1	227	3.0	0.573	16.9	LOS C	2.9	75.4	0.66	0.83	1.24	29.2
16	R2	232	3.0	0.412	12.9	LOS B	1.6	41.1	0.61	0.70	0.91	30.4
Approach		568	3.0	0.573	15.2	LOS C	2.9	75.4	0.64	0.77	1.10	29.6
North: SH-133												
7	L2	415	3.0	0.881	33.1	LOS D	16.9	431.7	0.89	1.60	2.69	22.6
4	T1	735	3.0	0.881	32.7	LOS D	16.9	432.5	0.88	1.59	2.68	22.9
14	R2	215	3.0	0.881	32.5	LOS D	16.9	432.5	0.87	1.58	2.68	22.6
Approach		1365	3.0	0.881	32.8	LOS D	16.9	432.5	0.88	1.59	2.68	22.7
West: Main Street												
5	L2	266	3.0	0.882	48.8	LOS E	7.7	196.1	0.91	1.67	2.94	16.7
2	T1	124	3.0	0.882	48.8	LOS E	7.7	196.1	0.91	1.67	2.94	16.5
12	R2	84	3.0	0.202	11.9	LOS B	0.5	13.8	0.67	0.67	0.67	22.1
Approach		474	3.0	0.882	42.2	LOS E	7.7	196.1	0.87	1.50	2.54	17.4
All Vehicles		3041	3.0	0.882	27.3	LOS D	16.9	432.5	0.78	1.26	2.03	23.5

Site Level of Service (LOS) Method: Delay & v/c (HCM 2010). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 2010).

Roundabout Capacity Model: US HCM 2010.

HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.




Gap-Acceptance Capacity: Traditional M1.




HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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Intersection						
Int Delay, s/veh	0.7					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	7	185	110	4	12	6
Future Vol, veh/h	7	185	110	4	12	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	8	201	120	4	13	7
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	124	0	-	0	339	122
Stage 1	-	-	-	-	122	-
Stage 2	-	-	-	-	217	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1463	-	-	-	657	929
Stage 1	-	-	-	-	903	-
Stage 2	-	-	-	-	819	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1463	-	-	-	653	929
Mov Cap-2 Maneuver	-	-	-	-	653	-
Stage 1	-	-	-	-	898	-
Stage 2	-	-	-	-	819	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.3	0		10.1		
HCM LOS				B		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1463	-	-	-	725	
HCM Lane V/C Ratio	0.005	-	-	-	0.027	
HCM Control Delay (s)	7.5	0	-	-	10.1	
HCM Lane LOS	A	A	-	-	B	
HCM 95th %tile Q(veh)	0	-	-	-	0.1	




Intersection						
Int Delay, s/veh	0.9					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	13	176	216	12	14	12
Future Vol, veh/h	13	176	216	12	14	12
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	14	191	235	13	15	13
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	248	0	-	0	461	242
Stage 1	-	-	-	-	242	-
Stage 2	-	-	-	-	219	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1318	-	-	-	559	797
Stage 1	-	-	-	-	798	-
Stage 2	-	-	-	-	817	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1318	-	-	-	552	797
Mov Cap-2 Maneuver	-	-	-	-	552	-
Stage 1	-	-	-	-	788	-
Stage 2	-	-	-	-	817	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.5	0		10.9		
HCM LOS				B		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1318	-	-	-	643	
HCM Lane V/C Ratio	0.011	-	-	-	0.044	
HCM Control Delay (s)	7.8	0	-	-	10.9	
HCM Lane LOS	A	A	-	-	B	
HCM 95th %tile Q(veh)	0	-	-	-	0.1	




HCM 6th TWSC
4: Main St & Shorty Pabst Way




2022 Total AM.syn




03/12/2020




Intersection						
Int Delay, s/veh	0.9					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	10	186	110	4	14	7
Future Vol, veh/h	10	186	110	4	14	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	202	120	4	15	8
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	124	0	-	0	346	122
Stage 1	-	-	-	-	122	-
Stage 2	-	-	-	-	224	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1463	-	-	-	651	929
Stage 1	-	-	-	-	903	-
Stage 2	-	-	-	-	813	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1463	-	-	-	646	929
Mov Cap-2 Maneuver	-	-	-	-	646	-
Stage 1	-	-	-	-	896	-
Stage 2	-	-	-	-	813	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.4	0		10.2		
HCM LOS				B		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1463	-	-	-	719	
HCM Lane V/C Ratio	0.007	-	-	-	0.032	
HCM Control Delay (s)	7.5	0	-	-	10.2	
HCM Lane LOS	A	A	-	-	B	
HCM 95th %tile Q(veh)	0	-	-	-	0.1	

Intersection						
Int Delay, s/veh	1.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	16	177	216	12	20	14
Future Vol, veh/h	16	177	216	12	20	14
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	17	192	235	13	22	15
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	248	0	-	0	468	242
Stage 1	-	-	-	-	242	-
Stage 2	-	-	-	-	226	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1318	-	-	-	553	797
Stage 1	-	-	-	-	798	-
Stage 2	-	-	-	-	812	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1318	-	-	-	545	797
Mov Cap-2 Maneuver	-	-	-	-	545	-
Stage 1	-	-	-	-	787	-
Stage 2	-	-	-	-	812	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.6	0		11.1		
HCM LOS				B		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1318	-	-	-	627	
HCM Lane V/C Ratio	0.013	-	-	-	0.059	
HCM Control Delay (s)	7.8	0	-	-	11.1	
HCM Lane LOS	A	A	-	-	B	
HCM 95th %tile Q(veh)	0	-	-	-	0.2	

Intersection						
Int Delay, s/veh	0.6					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	7	207	123	4	12	6
Future Vol, veh/h	7	207	123	4	12	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	8	225	134	4	13	7
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	138	0	-	0	377	136
Stage 1	-	-	-	-	136	-
Stage 2	-	-	-	-	241	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1446	-	-	-	625	913
Stage 1	-	-	-	-	890	-
Stage 2	-	-	-	-	799	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1446	-	-	-	621	913
Mov Cap-2 Maneuver	-	-	-	-	621	-
Stage 1	-	-	-	-	885	-
Stage 2	-	-	-	-	799	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.2	0		10.3		
HCM LOS	B					
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1446	-	-	-	695	
HCM Lane V/C Ratio	0.005	-	-	-	0.028	
HCM Control Delay (s)	7.5	0	-	-	10.3	
HCM Lane LOS	A	A	-	-	B	
HCM 95th %tile Q(veh)	0	-	-	-	0.1	

Intersection						
Int Delay, s/veh	0.8					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	13	194	240	12	14	12
Future Vol, veh/h	13	194	240	12	14	12
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	14	211	261	13	15	13
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	274	0	-	0	507	268
Stage 1	-	-	-	-	268	-
Stage 2	-	-	-	-	239	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1289	-	-	-	525	771
Stage 1	-	-	-	-	777	-
Stage 2	-	-	-	-	801	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1289	-	-	-	519	771
Mov Cap-2 Maneuver	-	-	-	-	519	-
Stage 1	-	-	-	-	768	-
Stage 2	-	-	-	-	801	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.5	0		11.2		
HCM LOS				B		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1289	-	-	-	611	
HCM Lane V/C Ratio	0.011	-	-	-	0.046	
HCM Control Delay (s)	7.8	0	-	-	11.2	
HCM Lane LOS	A	A	-	-	B	
HCM 95th %tile Q(veh)	0	-	-	-	0.1	

Intersection						
Int Delay, s/veh	0.8					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	10	208	123	4	14	7
Future Vol, veh/h	10	208	123	4	14	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	226	134	4	15	8
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	138	0	-	0	384	136
Stage 1	-	-	-	-	136	-
Stage 2	-	-	-	-	248	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1446	-	-	-	619	913
Stage 1	-	-	-	-	890	-
Stage 2	-	-	-	-	793	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1446	-	-	-	613	913
Mov Cap-2 Maneuver	-	-	-	-	613	-
Stage 1	-	-	-	-	882	-
Stage 2	-	-	-	-	793	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.3	0		10.4		
HCM LOS				B		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1446	-	-	-	688	
HCM Lane V/C Ratio	0.008	-	-	-	0.033	
HCM Control Delay (s)	7.5	0	-	-	10.4	
HCM Lane LOS	A	A	-	-	B	
HCM 95th %tile Q(veh)	0	-	-	-	0.1	

Intersection						
Int Delay, s/veh	1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	16	195	240	12	20	14
Future Vol, veh/h	16	195	240	12	20	14
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	17	212	261	13	22	15
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	274	0	-	0	514	268
Stage 1	-	-	-	-	268	-
Stage 2	-	-	-	-	246	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1289	-	-	-	521	771
Stage 1	-	-	-	-	777	-
Stage 2	-	-	-	-	795	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1289	-	-	-	513	771
Mov Cap-2 Maneuver	-	-	-	-	513	-
Stage 1	-	-	-	-	765	-
Stage 2	-	-	-	-	795	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.6	0		11.5		
HCM LOS				B		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1289	-	-	-	595	
HCM Lane V/C Ratio	0.013	-	-	-	0.062	
HCM Control Delay (s)	7.8	0	-	-	11.5	
HCM Lane LOS	A	A	-	-	B	
HCM 95th %tile Q(veh)	0	-	-	-	0.2	

APPENDIX E

Queueing Analysis Worksheets

QUEUE DISTANCE (%ILE)

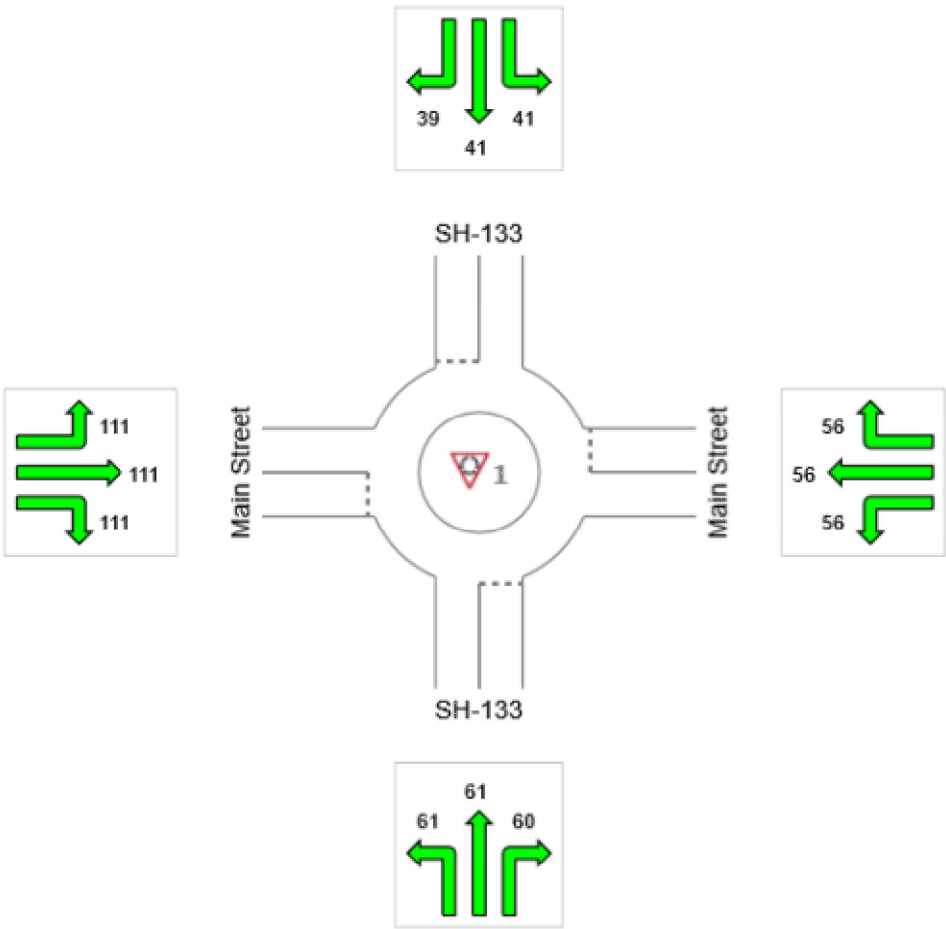
Largest 95% Back of Queue Distance for any lane used by vehicle movement (feet)

 **Site: 1 [2022 Total AM]**

Main Street & SH-133
Site Category: (None)
Roundabout

All Movement Classes

	Approaches				Intersection
	South	East	North	West	
Vehicle Queue (%ile)	61	56	41	111	111



Colour code based on Queue Storage Ratio



QUEUE DISTANCE (%ILE)

Largest 95% Back of Queue Distance for any lane used by vehicle movement (feet)



Site: 1 [2022 Total PM]

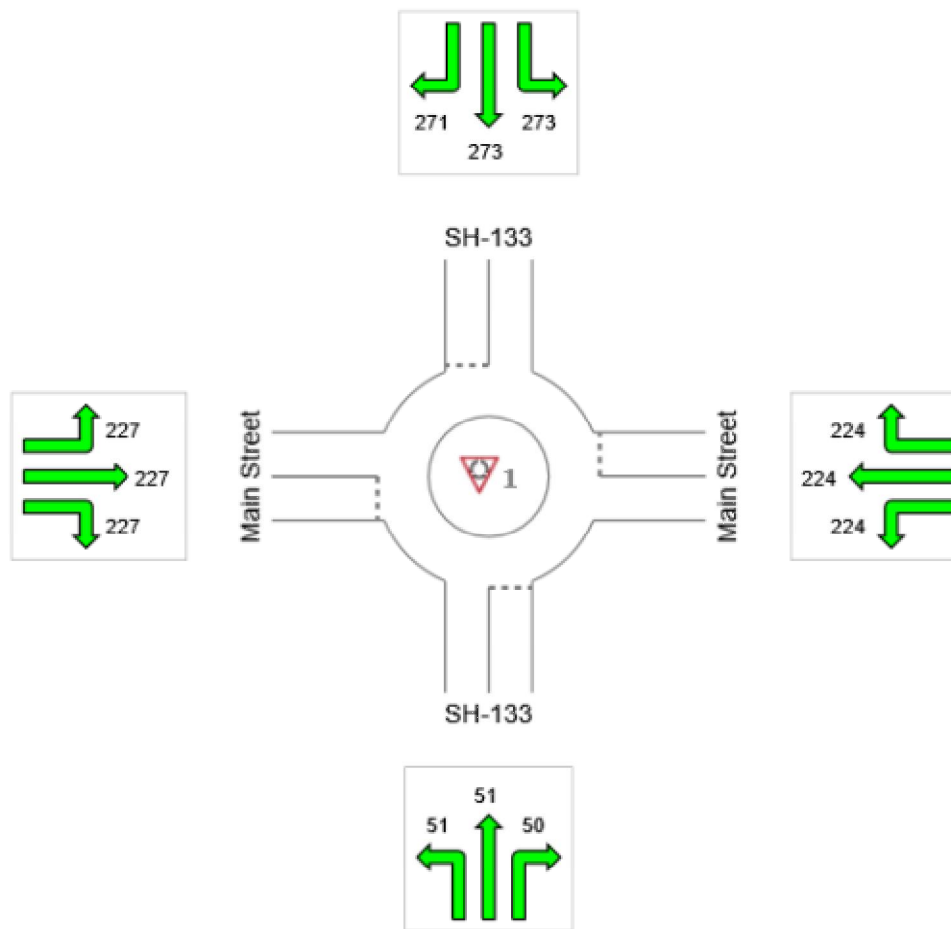
Main Street & SH-133

Site Category: (None)

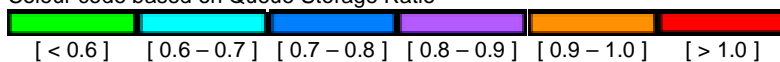
Roundabout

All Movement Classes

	Approaches				Intersection
	South	East	North	West	
Vehicle Queue (%ile)	51	224	273	227	273



Colour code based on Queue Storage Ratio



QUEUE DISTANCE (%ILE)

Largest 95% Back of Queue Distance for any lane used by vehicle movement (feet)

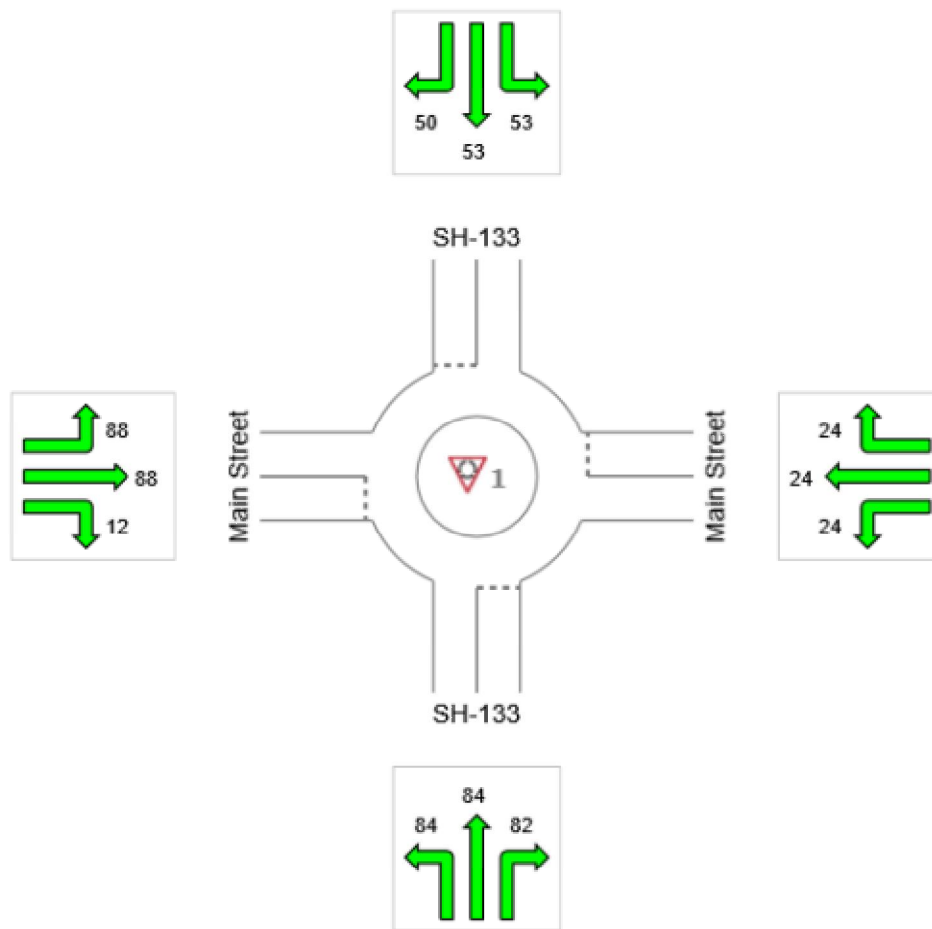


Site: 1 [2040 Total AM + RT Lanes]

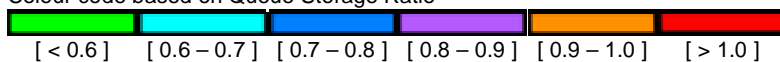
Main Street & SH-133
Site Category: (None)
Roundabout

All Movement Classes

	Approaches				Intersection
	South	East	North	West	
Vehicle Queue (%ile)	84	24	53	88	88



Colour code based on Queue Storage Ratio



QUEUE DISTANCE (%ILE)

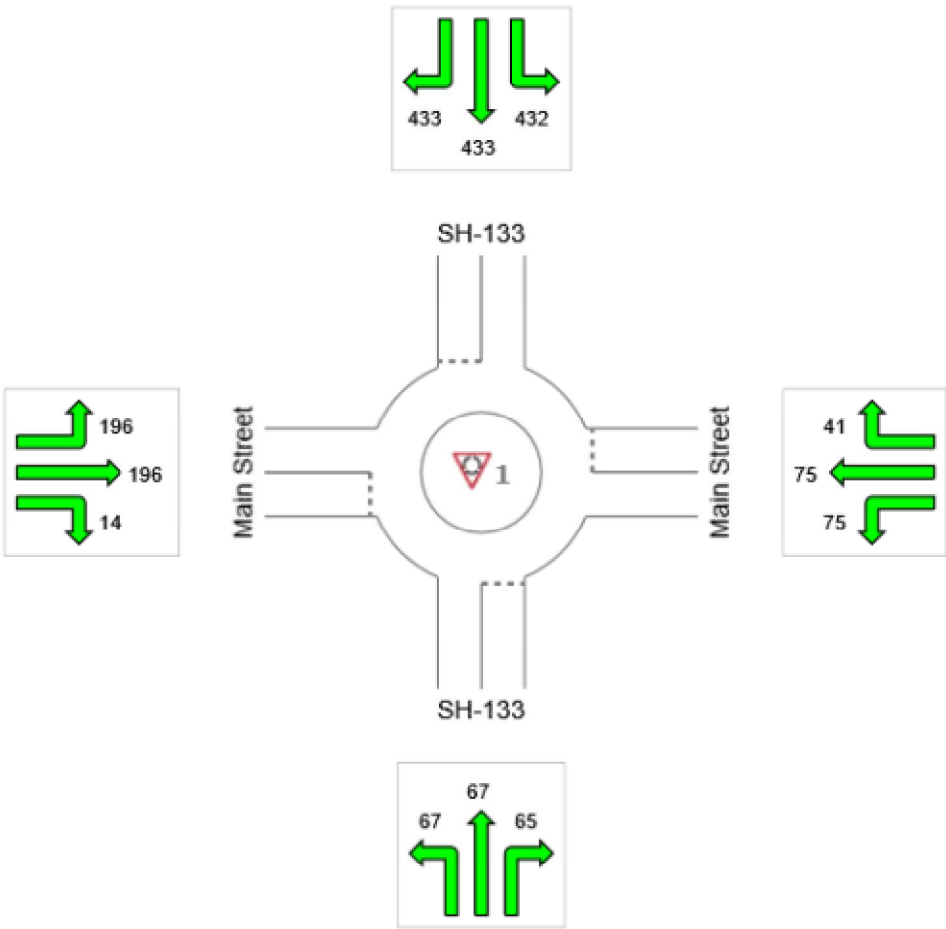
Largest 95% Back of Queue Distance for any lane used by vehicle movement (feet)

 **Site: 1 [2040 Total PM + RT Lanes]**

Main Street & SH-133
Site Category: (None)
Roundabout

All Movement Classes

	Approaches				Intersection
	South	East	North	West	
Vehicle Queue (%ile)	67	75	433	196	433





Colour code based on Queue Storage Ratio



APPENDIX F

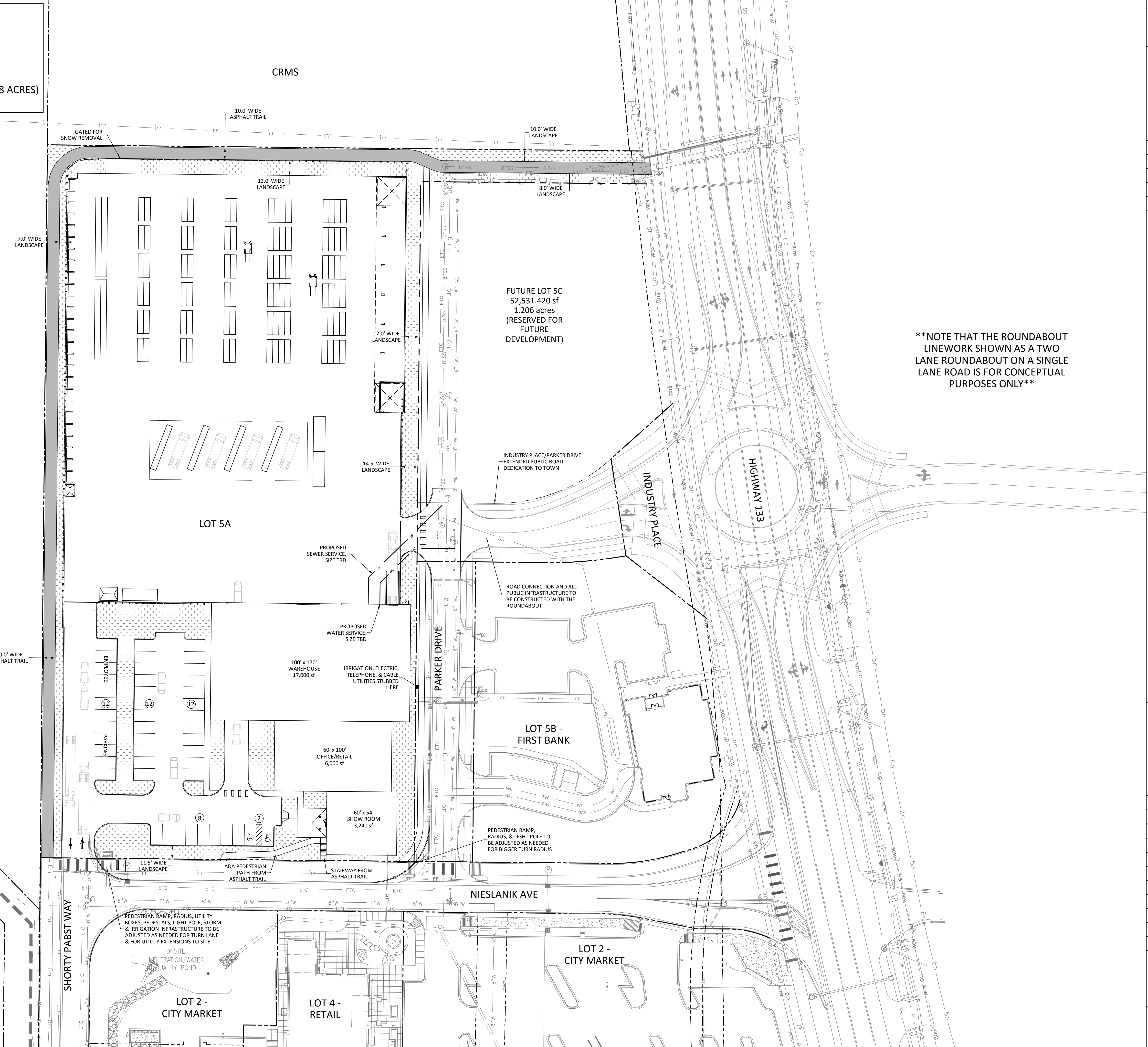
Conceptual Site Plan

LAND AREA SUMMARY	
-	EXISTING LOT 5A AREA: 261,617 SF (6.006 ACRES)
-	PROPOSED LOT 5A AREA: 199,138 SF (4.572 ACRES)
-	PROPOSED LOT 5C AREA: 52,531 SF (1.206 ACRES)
-	PROPOSED PARKER/INDUSTRY PUBLIC DEDICATION: 9,948 SF (0.228 ACRES)
-	<u>TOTAL AREA: 261,617 SF (6.006 ACRES)</u>

- PROPOSED LOT 5A AREA: 199,137.772 SF (4.572 ACRES)
20% LANDSCAPE AREA REQUIRED: 39,827.555 SF
- PERVIOUS LANDSCAPE ONSITE: ±30,255 SF 
- PROPOSED REGIONAL TRAIL AREA: ±11,000 SF 
- PARKING REQUIREMENTS:
- COMBINED RETAIL, OFFICE, & SHOWROOM = 12,240 SF
 - MINIMUM PARKING IS 1/300 SF = 41 SPACES
 - PROPOSING 44 SPACES PLUS 2 HANDICAP

PARKING REQUIREMENTS:

- COMBINED RETAIL, OFFICE, & SHOWROOM = 12,240 SF
- MINIMUM PARKING IS 1/300 SF = 41 SPACES
- PROPOSING 44 SPACES PLUS 2 HANDICAP



DATE	REVISION
TITLE	
CONCEPT SITE PLAN	
DRAWING NO.	
C-1.0	

DATE: 02-28-2020

JOB NO. 14243

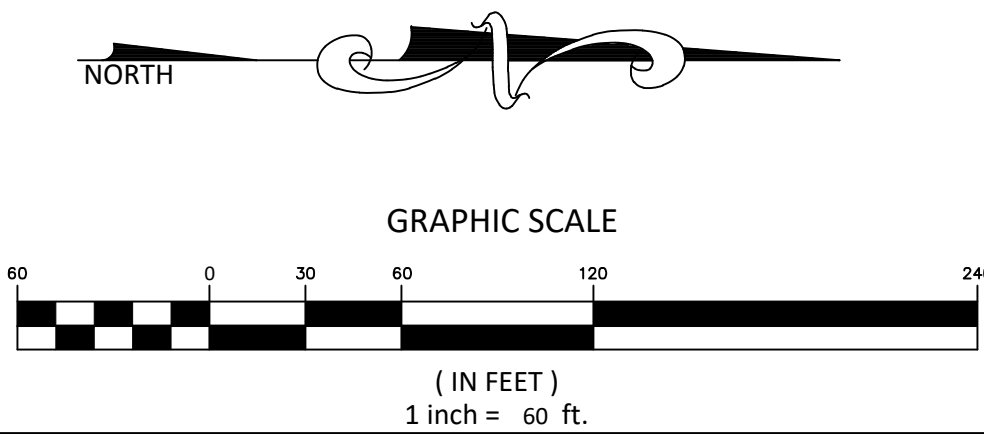
MASTER PLAN - SITE LAYOUT

[illegible]

MASTER PLAN
SITE LAYOUT

FIGURE

C-0.0



COLORADO DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ACCESS PERMIT APPLICATION

Issuing authority application
acceptance date:

Instructions:

**Please print
or type**

- Contact the Colorado Department of Transportation (CDOT) or your local government to determine your issuing authority.
- Contact the issuing authority to determine what plans and other documents are required to be submitted with your application.
- Complete this form (some questions may not apply to you) and attach all necessary documents and Submit it to the issuing authority.
- Submit an application for each access affected.
- If you have any questions contact the issuing authority.
- For additional information see CDOT's Access Management website at <https://www.codot.gov/business/permits/accesspermits>

1) Property owner (Permittee) TOWN OF CARBONDALE, c/o JAY HARRINGTON		2) Applicant or Agent for permittee (if different from property owner) SOPRIS ENGINEERING LLC, c/o YANCY NICHOL								
Street address 511 COLORADO AVE		Mailing address 502 MAIN ST, SUITE A3								
City, state & zip CARBONDALE, CO 81623	Phone # 970-510-1207	City, state & zip CARBONDALE, CO 81623	Phone # (required) 970-704-0311							
E-mail address JHARRINGTON@CARBONDALECO.NET		E-mail address if available YNICHOL@SOPRISENG.COM								
3) Address of property to be served by permit (required) LOCATED NORTH OF NIESLANIK AVE AND WEST OF HIGHWAY 133										
4) Legal description of property: If within jurisdictional limits of Municipality, city and/or County, which one? <table border="1"> <tr> <td>county GARFIELD</td> <td>subdivision CARBONDALE MARKE</td> <td>block PLACE</td> <td>lot 5A, 5B, 2, 4</td> <td>section 33</td> <td>township 7S</td> <td>range 88W</td> </tr> </table>				county GARFIELD	subdivision CARBONDALE MARKE	block PLACE	lot 5A, 5B, 2, 4	section 33	township 7S	range 88W
county GARFIELD	subdivision CARBONDALE MARKE	block PLACE	lot 5A, 5B, 2, 4	section 33	township 7S	range 88W				
5) What State Highway are you requesting access from? HIGHWAY 133		6) What side of the highway? <input type="checkbox"/> N <input type="checkbox"/> S <input type="checkbox"/> E <input checked="" type="checkbox"/> W								
7) How many feet is the proposed access from the nearest mile post? 1,450 feet <input type="checkbox"/> N <input checked="" type="checkbox"/> S <input type="checkbox"/> E <input type="checkbox"/> W from: MP 68		How many feet is the proposed access from the nearest cross street? 0 feet <input type="checkbox"/> N <input type="checkbox"/> S <input type="checkbox"/> E <input type="checkbox"/> W from: NIESLANIK AVE								
8) What is the approximate date you intend to begin construction? SUMMER/FALL, 2021										
9) Check here if you are requesting a: <input type="checkbox"/> new access <input type="checkbox"/> temporary access (duration anticipated: _____) <input checked="" type="checkbox"/> improvement to existing access <input type="checkbox"/> change in access use <input type="checkbox"/> removal of access <input type="checkbox"/> relocation of an existing access (provide detail)										
10) Provide existing property use AGRICULTURAL, IRRIGATED HAY FIELDS										
11) Do you have knowledge of any State Highway access permits serving this property, or adjacent properties in which you have a property interest? <input type="checkbox"/> no <input checked="" type="checkbox"/> yes, if yes - what are the permit number(s) and provide copies: AP 315184, AP 315185 - COPIES ATTACHED and/or, permit date:										
12) Does the property owner own or have any interests in any adjacent property? <input type="checkbox"/> no <input checked="" type="checkbox"/> yes, if yes - please describe: ADJACENT SUBDIVISION LOTS ARE UNDER CONSTRUCTION (CITY MARKET)										
13) Are there other existing or dedicated public streets, roads, highways or access easements bordering or within the property? <input type="checkbox"/> no <input checked="" type="checkbox"/> yes, if yes - list them on your plans and indicate the proposed and existing access points.										
14) If you are requesting agricultural field access - how many acres will the access serve?										
15) If you are requesting commercial or industrial access please indicate the types and number of businesses and provide the floor area square footage of each.										
business/land use		square footage								
Builders FirstSource Lumber Yard	29,240	Office	5,000							
Bank	5,860	Retail	5,000							
16) If you are requesting residential development access, what is the type (single family, apartment, townhouse) and number of units?										
type	number of units	type	number of units							
17) Provide the following vehicle count estimates for vehicles that will use the access. Leaving the property then returning is two counts.										
Indicate if your counts are <input checked="" type="checkbox"/> peak hour volumes or <input type="checkbox"/> average daily volumes.		# of passenger cars and light trucks at peak hour volumes 350	# of multi unit trucks at peak hour volumes 2							
# of single unit vehicles in excess of 30 ft. 8	# of farm vehicles (field equipment) 0	Total count of all vehicles 360								

18) Check with the issuing authority to determine which of the following documents are required to complete the review of your application.

- | | |
|--|---|
| a) Property map indicating other access, bordering roads and streets. | e) Subdivision, zoning, or development plan. |
| b) Highway and driveway plan profile. | f) Proposed access design. |
| c) Drainage plan showing impact to the highway right-of-way. | g) Parcel and ownership maps including easements. |
| d) Map and letters detailing utility locations before and after development in and along the right-of-way. | h) Traffic studies. |
| | i) Proof of ownership. |

1- It is the applicant's responsibility to contact appropriate agencies and obtain all environmental clearances that apply to their activities. Such clearances may include Corps of Engineers 404 Permits or Colorado Discharge Permit System permits, or ecological, archeological, historical or cultural resource clearances. The CDOT Environmental Clearances Information Summary presents contact information for agencies administering certain clearances, information about prohibited discharges, and may be obtained from Regional CDOT Utility/Special Use Permit offices or accessed via the CDOT Planning/Construction-Environmental-Guidance webpage: <https://www.codot.gov/programs/environmental/resources/guidance-standards/environmental-clearances-info-summary-august-2017/view>

2- All workers within the State Highway right of way shall comply with their employer's safety and health policies/procedures, and all applicable U.S. Occupational Safety and Health Administration (OSHA) regulations - including, but not limited to the applicable sections of 29 CFR Part 1910 - Occupational Safety and Health Standards and 29 CFR Part 1926 - Safety and Health Regulations for Construction.

Personal protective equipment (e.g. head protection, footwear, high visibility apparel, safety glasses, hearing protection, respirators, gloves, etc.) shall be worn as appropriate for the work being performed, and as specified in regulation. At a minimum, all workers in the State Highway right of way, except when in their vehicles, shall wear the following personal protective equipment: High visibility apparel as specified in the Traffic Control provisions of the documentation accompanying the Notice to Proceed related to this permit (at a minimum, ANSI/ISEA 107-1999, class 2); head protection that complies with the ANSI Z89.1-1997 standard; and at all construction sites or whenever there is danger of injury to feet, workers shall comply with OSHA's PPE requirements for foot protection per 29 CFR 1910.136, 1926.95, and 1926.96. If required, such footwear shall meet the requirements of ANSI Z41-1999.

Where any of the above-referenced ANSI standards have been revised, the most recent version of the standard shall apply.

3- The Permittee is responsible for complying with the Revised Guidelines that have been adopted by the Access Board under the American Disabilities Act (ADA). These guidelines define traversable slope requirements and prescribe the use of a defined pattern of truncated domes as detectable warnings at street crossings. The new Standards Plans and can be found on the Design and Construction Project Support web page at:

<https://www.codot.gov/business/civilrights/ada/resources-engineers>

If an access permit is issued to you, it will state the terms and conditions for its use. Any changes in the use of the permitted access not consistent with the terms and conditions listed on the permit may be considered a violation of the permit.

The applicant declares under penalty of perjury in the second degree, and any other applicable state or federal laws, that all information provided on this form and submitted attachments are to the best of their knowledge true and complete.

I understand receipt of an access permit does not constitute permission to start access construction work.

Applicant or Agent for Permittee signature	Print name	Date
If the applicant is not the owner of the property, we require this application also to be signed by the property owner or their legally authorized representative (or other acceptable written evidence). This signature shall constitute agreement with this application by all owners-of-interest unless stated in writing. If a permit is issued, the property owner, in most cases, will be listed as the permittee.		
Property owner signature	Print name	Date

**INSTRUCTIONS FOR COMPLETING APPLICATION FOR ACCESS PERMIT
(CDOT FORM NO. 137)
December 2018**

To construct, relocate, close, or modify access(es) to a State Highway or when there are changes in use of such access point(s), an application for access permit must be submitted to the Colorado Department of Transportation (CDOT) or the local jurisdiction serving as the issuing authority for State Highway Access Permits. Contact the CDOT Regional Access Unit in which the subject property is located to determine where the application must be submitted. The following link will help you determine which CDOT Region office to contact:

<https://www.codot.gov/business/permits/accesspermits/regional-offices.html>

All applications are processed and access permits are issued in accordance to the requirements and procedures found in the most current version of the State Highway Access Code (Access Code). Code and the application form are also available from CDOT's web site at:

<https://www.codot.gov/business/permits/accesspermits>

Please complete all information requested accurately. Access permits granted based on applications found to contain false information may be revoked. An incomplete application will not be accepted. If additional information, plans and documents are required, attach them to the application. Keep a copy of your submittal for your records. Please note that only the original signed copy of the application will be accepted. Do not send or enclose any permit fee at this time. A permit fee will be collected if an access permit is issued. The following is a brief description of the information to be provided on each enumerated space on the application form (CDOT Form 137, 2010).

1. Property Owner (Permittee): Please provide the full name, mailing address and telephone number and the E-mail address (if available) of the legal property owner (owner of the surface rights). Please provide a telephone number where the Permittee can be reached during business hours (8:00 a.m. to 5:00 p.m.). Having a contract on the property is not a sufficient legal right to that property for purposes of this application. If the access is to be on or across an access easement, then a copy of the easement **MUST** accompany this application. If federal land is involved, provide the name of the relevant federal agency **AND** attach copy of federal authorization for property use.

2. Agent for permittee: If the applicant (person completing this application) is different than the property owner (Permittee), provide entity name (if applicable), the full name of the person serving as the Agent, mailing address, telephone number, and the E-mail address (if available). Please provide a telephone number where the Agent can be reached during business hours (8:00 a.m. to 5:00 p.m.). Joint applications such as owner/lessee may be submitted. Corporations must be licensed to do business in Colorado: All corporations serving as, or providing, an Agent as the applicant must be licensed to do business in Colorado.

3. **Address of Property to be Served:** Provide if property to be served has an official street address. If the access is a public road, note the name (or future name) of the road.
4. **Legal Description of Property:** Fill in this item to the extent it applies. This information is available at your local County Courthouse, or on your ownership deed(s). A copy of the deed may be required as part of this application in some situations. To determine applicability, check with the CDOT's Regional Access Manager or issuing authority staff.
5. **State Highway:** Provide the State Highway number from which the access is requested.
6. **Highway Side:** Mark the appropriate box to indicate what side of the highway the requested access is located.
7. **Access Mile Point:** Without complete information, we may not be able to locate the proposed access. To obtain the distance in feet, drive the length between the mile point and the proposed access, rounding the distance on the odometer to the nearest tenth of a mile; multiply the distance by 5,280 feet to obtain the number of feet from the mile point. Then enter the direction (i.e. north, south, east, west) from the mile point to the proposed access. Finally, enter the mile point number. It is helpful in rural or undeveloped areas if some flagging is tied to the right-of-way fence at the desired location of the access. Also, if there is a cross street or road close to the proposed access, note the distance in feet (using the same procedures noted above) from that cross street or road.
8. **Access Construction Date:** Fill in the date on which construction of the access is planned to begin.
9. **Access Request:** Mark items that apply. More than one item may be checked.
10. **Existing property use:** Describe how the property is currently being used. For example, common uses are Single Family Residential, Commercial or Agricultural.
11. **Existing Access:** Does the property have *any other legal alternatives to reach a public road* other than the access requested in this application? Note the access permit number(s) for any existing state highway access point(s) along with their issue date(s). If there are no existing access point(s), mark the "no" box.
12. **Adjacent Property:** Please mark the appropriate box. If the "yes" box is marked, provide a brief description of the property (location of the property in relation to the property for which this access application is being made).
13. **Abutting Streets:** If there are any other existing or proposed public roads or easements abutting the property, they should be shown on a map or plan attached to this application.
14. **Agricultural Acres:** Provide number of acres to be served.

15. Access Use: List the land uses and square footage of the site as it will be when it is fully developed. The planned land uses as they will be when the site is fully developed are used to project the amount of traffic that the site will generate, peak hour traffic levels and the type of vehicles that can be expected as a result of the planned land uses. There may be exceptional circumstances that would allow phased installation of access requirements. This is at the discretion of the CDOT Regional Access Unit or issuing authority staff.

16. Estimated Traffic Count: Provide a reasonable estimate of the traffic volume expected to use the access. Note the type of vehicles that will use the access along with the volume (number of vehicles in and out at either the peak hour or average daily rates) for each type of vehicle. A vehicle leaving the property and then returning counts as two trips. If 40 customers are expected to visit the business daily, there would be 80 trips in addition to the trips made by all employees and other visitors (such as delivery and trash removal vehicles). If the PDF on-line version of this application is being used, the fields for each type of vehicle will automatically be added together to populate the last field on the page.

17. Documents and Plans: The CDOT Regional Access Manager or issuing authority staff will determine which of these items must be provided to make the application complete. Incomplete applications will not be accepted. If an incomplete application is received via U.S. mail or through means other than in the hand of the Access Manager or issuing authority staff, it will not be processed. *It is the responsibility of the applicant to verify with the CDOT Regional Access Manager or issuing authority staff whether the application is complete at the time of submission.*

Signature: Generally, if the applicant is not the property owner, then the property owner or a legally authorized representative must sign the application. With narrow exceptions, proof of the property owner's consent is required to be submitted with the application (proof may be a power of attorney or a similar consent instrument). The CDOT Regional Access Manager or issuing authority staff will determine if the exception provided in the Access Code (2.3 (3) (b)) is applicable.

If CDOT is the issuing authority for this application, direct your questions to the CDOT Regional Access Manager or the issuing authority staff serving the subject property.

<https://www.codot.gov/business/permits/accesspermits/regional-offices.html>

If the application is accepted, it will be reviewed by the CDOT Regional Access Manager or the issuing authority staff. If an Access Permit is issued, be sure to read all of the attached Terms and Conditions before signing and returning the Access Permit. The Terms and Conditions may require that additional information be provided prior to issuance of the Notice to Proceed.

The CDOT Regional Access Manager (or issuing authority staff) **MUST** be contacted prior to commencing work on any Access Permit project. *A Notice to Proceed that authorizes the Permittee to begin access related construction MUST be issued prior to working on the access in the State Highway right-of-way.* The Notice to Proceed may also have Terms and Conditions that must be fulfilled before work may begin on the permitted access.



Hepworth-Pawlak Geotechnical, Inc.
5020 County Road 154
Glenwood Springs, Colorado 81601
Phone: 970-945-7988

Fax: 970-945-8454
hpgeo@hpgeotech.com

January 11, 2002

Sopris Engineering, LLC
Attn: Yancy Nichol
502 Main Street Suite A3
Carbondale, Colorado 81623

Job No. 198 650

Subject: Review of Subsoil Study, Proposed Commercial Development,
Northwest of Highway 133 and Main Street, Carbondale, Colorado

Dear Yancy:

As requested, we have reviewed our subsoil study for design of foundations at the site dated October 17, 2000, Job No. 198 650 with respect to the proposed site plan provided to us on December 26, 2001.

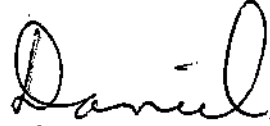
The proposed development consists of two large anchor stores of 75,000 to 100,000 square feet located at the southwest and northwest corners of the property. Three smaller retail buildings on the order of 15,000 to 20,000 square feet will be attached to the northwest store. The buildings will be tall one story steel frame/masonry structures with slab-on-grade floors. A gas station is proposed in the northeast corner of the site. The rest of the site will be paved parking and access drives.

Our previous report should be suitable for design of the proposed development. The area of the southwest anchor store is low relative to Main Street and will require up to 6 feet of structural fill below slabs-on-grade to raise the area to near street level. The on-site gravel soils are suitable for use as structural fill under buildings. Screening or crushing of the natural gravel soils will probably be needed due to the oversize rock. The design parameters provided in our previous report should be suitable for design of foundations for the proposed structures.

If there are any questions or if we may be of further assistance, please let us know.

Sincerely,

HEPWORTH - PAWLAK GEOTECHNICAL, INC.


Daniel E. Hardin, P.E.
Rev. by: SLP
DEH/ksw





20015.01
Hepworth-Pawlak Geotechnical, Inc.
5020 County Road 154
Glenwood Springs, Colorado 81601
Phone: 970-945-7988

Fax: 970-945-8454
hpgeo@hpgeotech.com

**SUBSOIL STUDY
FOR FOUNDATION DESIGN
PROPOSED CRYSTAL RIVER MARKETPLACE
NORTHWEST OF HIGHWAY 133 AND MAIN STREET
CARBONDALE, COLORADO**

JOB NO. 198 650

OCTOBER 17, 2000

PREPARED FOR:

**SOPRIS ENGINEERING
ATTN: YANCY NICHOL
520 MAIN STREET, SUITE A3
CARBONDALE, COLORADO 81623**

HEPWORTH - PAWLAK GEOTECHNICAL, INC.

October 17, 2000

Sopris Engineering
Attn: Yancy Nichol
520 Main Street, Suite A3
Carbondale, Colorado 81623

Job No. 198 650

Subject: Report Transmittal, Subsoil Study for Foundation Design, Proposed
Crystal River Marketplace, Northwest of Highway 133 and Main Street,
Carbondale, Colorado

Dear Yancy:

As requested, we have conducted a subsoil study for the proposed development at the subject site.

Subsurface conditions encountered in the exploratory borings drilled in the proposed development area consist of ½ foot to 1 foot of topsoil and up to 2½ feet of sandy silty clay overlying relatively dense sandy gravel with cobbles. Groundwater was not encountered in the borings at the time of drilling.

The proposed development can be founded on spread footings placed on the natural granular subsoils and designed for an allowable bearing pressure of 4,000 psf.

The report which follows describes our exploration, summarizes our findings, and presents our recommendations. It is important that we provide consultation during design, and field services during construction to review and monitor the implementation of the geotechnical recommendations.

If you have any questions regarding this report, please contact us.

Sincerely,

HEPWORTH - PAWLAK GEOTECHNICAL, INC.



Daniel E. Hardin, P.E.

Rev. by: JZA

DEH/ksw

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PURPOSE AND SCOPE OF STUDY

This report presents the results of a subsoil study for a proposed commercial development to be located northwest of Highway 133 and Main Street, Carbondale, Colorado. The project site is shown on Fig. 1. The purpose of the study was to develop recommendations for foundation design. The study was conducted in accordance with our agreement for geotechnical engineering study to Sopris Engineering dated September 17, 1998.

A field exploration program consisting of exploratory borings was conducted to obtain information on subsurface conditions. Samples of the subsoils obtained during the field exploration were tested in the laboratory to determine their classification, compressibility and other engineering characteristics. The results of the field exploration and laboratory testing were analyzed to develop recommendations for foundation types, depths and allowable pressures for the proposed building foundation. This report summarizes the data obtained during this study and presents our conclusions, design recommendations and other geotechnical engineering considerations based on the proposed construction and the subsoil conditions encountered.

PROPOSED CONSTRUCTION

The proposed commercial development will be primarily tall one story structures with some 3 story structures in the "Village" area. The structures will be tilt up concrete walls. Ground floors will be slab-on-grade. Grading for the structures is assumed to be relatively minor with cut depths between about 2 to 6 feet. We assume relatively light to moderate foundation loadings, typical of the proposed type of construction.

If building loadings, location or grading plans change significantly from those described above, we should be notified to re-evaluate the recommendations contained in this report.

SITE CONDITIONS

The site consists of gently rolling irrigated pastureland with some commercial development along Highway 133 and residential development along Main Street. The irrigation ditches were flowing at the time of our field work. Vegetation at the site consists mostly of grass and weeds with willows and other brush bordering the Rockford irrigation ditch. There are deciduous trees and tall brush in the existing residential area in the southern part of the site.

SUBSIDENCE POTENTIAL

Bedrock of the Pennsylvanian age Eagle Valley Evaporite underlies the Crystal River Market place development. These rocks are a sequence of gypsiferous shale, fine-grained sandstone/siltstone and limestone with some massive beds of gypsum. There is a possibility that massive gypsum deposits associated with the Eagle Valley Evaporite underlie portions of the site. Dissolution of the gypsum under certain conditions can cause sinkholes to develop and can produce areas of localized subsidence. During previous work in the area, several sinkholes were observed scattered throughout the Carbondale area. These sinkholes appear similar to others associated with the Eagle Valley Evaporite in areas of the Roaring Fork Valley.

Sinkholes were not observed in the immediate area of the subject lot. Long linear depressions were observed in the area of Borings 4, 5 and 6 and Borings 21 to 24. These depressions could be associated with long term down warping of the underlying Eagle Valley Evaporite or could be erosional features in the overlying alluvial gravel. Borings drilled in the area of the linear features indicate soil conditions similar to other parts of the site. Further evaluation of these features could be performed during construction. No evidence of cavities was encountered in the subsurface materials; however, the exploratory borings were relatively shallow, for foundation design only. Based on our present knowledge of the subsurface conditions at the site, it cannot be said for certain that sinkholes will not develop. The risk of

future ground subsidence at this site throughout the service life of the proposed development, in our opinion, is low; however, the owner should be made aware of the potential for sinkhole development. If further investigation of possible cavities in the bedrock below the site is desired, we should be contacted.

FIELD EXPLORATION

The field exploration for the project was conducted on September 7, 8 and 14, 1998. Twenty-six exploratory borings were drilled at the locations shown on Fig. 1 to evaluate the subsurface conditions. The borings were advanced with 4 inch diameter continuous flight augers powered by a truck-mounted Longyear BK-51HD drill rig. The borings were logged by a representative of Hepworth-Pawlak Geotechnical, Inc.

Samples of the subsoils were taken with 1 $\frac{3}{8}$ inch and 2 inch I.D. spoon samplers. The samplers were driven into the subsoils at various depths with blows from a 140 pound hammer falling 30 inches. This test is similar to the standard penetration test described by ASTM Method D-1586. The penetration resistance values are an indication of the relative density or consistency of the subsoils. Depths at which the samples were taken and the penetration resistance values are shown on the Logs of Exploratory Borings, Figs. 2 to 4. The samples were returned to our laboratory for review by the project engineer and testing.

SUBSURFACE CONDITIONS

Graphic logs of the subsurface conditions encountered at the site are shown on Figs. 2 to 4. The subsoils consist of about $\frac{1}{2}$ to 1 foot of topsoil and up to 2 $\frac{1}{2}$ feet of medium stiff to stiff sandy silty clay overlying relatively dense, slightly silty sandy gravel containing cobbles and boulders. Drilling in the dense gravel with auger equipment was difficult due to the cobbles and boulders and drilling refusal was encountered in the deposit.

Laboratory testing performed on samples obtained from the borings included natural moisture content, density, Atterberg limits and gradation analyses. Results of consolidation testing performed on relatively undisturbed drive samples of the sandy clay soils, presented on Figs. 6 and 7 indicate low to moderate compressibility under conditions of loading and wetting. Results of gradation analyses performed on small diameter drive samples (minus 1½ inch fraction) of the natural coarse granular soils are shown on Figs. 8 to 10. Atterberg limits testing indicates the clay soils have low to medium plasticity. The laboratory testing is summarized in Table I.

No free water was encountered in the borings at the time of drilling and the subsoils were slightly moist to moist.

FOUNDATION BEARING CONDITIONS

The dense gravel soils at the site are suitable for light to moderately loaded spread footing construction. All topsoil, old fill and the natural clay soils should be removed from below footing areas and the footing level extended down to the dense gravel. As an alternative, footing grade could be re-established with compacted structural fill. Lightly loaded slabs could be placed on the natural clay or gravel soils.

DESIGN RECOMMENDATIONS

FOUNDATIONS

Considering the subsoil conditions encountered in the exploratory borings and the nature of the proposed construction, we recommend the buildings be founded with spread footings bearing on the natural granular soils.

The design and construction criteria presented below should be observed for a spread footing foundation system.

- 1) Footings placed on the undisturbed natural granular soils should be designed for an allowable soil bearing pressure of 4,000 psf. Based on

experience, we expect settlement of footings designed and constructed as discussed in this section will be about 1 inch or less.

- 2) The footings should have a minimum width of 16 inches for continuous walls and 2 feet for isolated pads.
- 3) Exterior footings and footings beneath unheated areas should be provided with adequate soil cover above their bearing elevation for frost protection. Placement of foundations at least 36 inches below exterior grade is typically used in this area.
- 4) Continuous foundation walls should be reinforced top and bottom to span local anomalies such as by assuming an unsupported length of at least 10 feet. Foundation walls acting as retaining structures should also be designed to resist lateral earth pressures as discussed in the "Foundation and Retaining Walls" section of this report.
- 5) All existing fill, topsoil, sandy clay and any loose or disturbed soils should be removed and the footing bearing level extended down to relatively dense natural granular soils. As an alternative, design footing grade could be re-established with structural fill compacted to at least 100% of the maximum standard Proctor density at a moisture content near optimum. The fill should extend out from the edge of the footing a distance equal to the depth of fill below the footing. Structural fill should consist of the on-site gravels or a suitable imported sandy gravel devoid of topsoil, vegetation and oversized rock.
- 6) A representative of the geotechnical engineer should observe all footing excavations prior to concrete placement to evaluate bearing conditions.

FOUNDATION AND RETAINING WALLS

Foundation walls and retaining structures which are laterally supported and can be expected to undergo only a slight amount of deflection should be designed for a lateral earth pressure computed on the basis of an equivalent fluid unit weight of 45 pcf for backfill consisting of the on-site granular soils. Cantilevered retaining structures

which are separate from the buildings and can be expected to deflect sufficiently to mobilize the full active earth pressure condition should be designed for a lateral earth pressure computed on the basis of an equivalent fluid unit weight of 35 pcf for backfill consisting of the on-site granular soils. Backfill should not contain vegetation, topsoil, clay soils or rock larger than about 6 inches.

All foundation and retaining structures should be designed for appropriate hydrostatic and surcharge pressures such as adjacent footings, traffic, construction materials and equipment. The pressures recommended above assume drained conditions behind the walls and a horizontal backfill surface. The buildup of water behind a wall or an upward sloping backfill surface will increase the lateral pressure imposed on a foundation wall or retaining structure. An underdrain should be provided to prevent hydrostatic pressure buildup behind walls.

Backfill should be placed in uniform lifts and compacted to at least 90% of the maximum standard Proctor density at a moisture content near optimum. Backfill in pavement and walkway areas should be compacted to at least 95% of the maximum standard Proctor density. Care should be taken not to overcompact the backfill or use large equipment near the wall, since this could cause excessive lateral pressure on the wall. Some settlement of deep foundation wall backfill should be expected, even if the material is placed correctly, and could result in distress to facilities constructed on the backfill.

The lateral resistance of foundation or retaining wall footings will be a combination of the sliding resistance of the footing on the foundation materials and passive earth pressure against the side of the footing. Resistance to sliding at the bottoms of the footings can be calculated based on a coefficient of friction of 0.50. Passive pressure of compacted backfill against the sides of the footings can be calculated using an equivalent fluid unit weight of 400 pcf. The coefficient of friction and passive pressure values recommended above assume ultimate soil strength. Suitable factors of safety should be included in the design to limit the strain which will occur at the ultimate strength, particularly in the case of passive resistance. Fill placed against the

sides of the footings to resist lateral loads should be compacted to at least 95% of the maximum standard Proctor density at a moisture content near optimum.

FLOOR SLABS

The natural on-site soils, exclusive of topsoil, are suitable to support lightly loaded slab-on-grade construction. To reduce the effects of some differential movement, floor slabs should be separated from all bearing walls and columns with expansion joints which allow unrestrained vertical movement. Floor slab control joints should be used to reduce damage due to shrinkage cracking. The requirements for joint spacing and slab reinforcement should be established by the designer based on experience and the intended slab use. A minimum 4 inch layer of free-draining gravel should be placed beneath slabs-on-grade to act as a leveling course. This material should consist of minus 2 inch aggregate with at least 50% retained on the No. 4 sieve and less than 2% passing the No. 200 sieve.

All fill materials for support of floor slabs should be compacted to at least 95% of maximum standard Proctor density at a moisture content near optimum. Required fill can consist of the on-site gravels or a suitable imported sandy gravel devoid of vegetation, topsoil and oversized rock.

UNDERDRAIN SYSTEM

Although free water was not encountered during our exploration, it has been our experience that local perched groundwater may develop during times of heavy precipitation or seasonal runoff. Frozen ground during spring runoff can create a perched condition. We recommend below-grade construction, such as retaining walls, crawlspace and basement areas, be protected from wetting and hydrostatic pressure buildup by an underdrain system.

The drains should consist of drainpipe placed in the bottom of the wall backfill surrounded above the invert level with free-draining granular material. The drain should be placed at each level of excavation and at least 1 foot below lowest adjacent finish grade and sloped at a minimum 1% to a suitable gravity outlet. Free-draining

granular material used in the underdrain system should contain less than 2% passing the No. 200 sieve, less than 50% passing the No. 4 sieve and have a maximum size of 2 inches. The drain gravel backfill should be at least 1½ feet deep.

SURFACE DRAINAGE

The following drainage precautions should be observed during construction and maintained at all times after the development has been completed:

- 1) Inundation of the foundation excavations and underslab areas should be avoided during construction.
- 2) Exterior backfill should be adjusted to near optimum moisture and compacted to at least 95% of the maximum standard Proctor density in pavement and slab areas and to at least 90% of the maximum standard Proctor density in landscape areas.
- 3) The ground surface surrounding the exterior of the buildings should be sloped to drain away from the foundation in all directions. We recommend a minimum slope of 6 inches in the first 10 feet in unpaved areas and a minimum slope of 3 inches in the first 10 feet in paved areas. Free-draining wall backfill should be capped with about 2 feet of the on-site finer graded soils to reduce surface water infiltration.
- 4) Roof downspouts and drains should discharge well beyond the limits of all backfill.

PAVEMENT DESIGN RECOMMENDATIONS

A pavement section is designed to distribute concentrated traffic loads to the subgrade. Pavement design procedures are based on strength properties of the subgrade and pavement materials assuming stable, uniform subgrade conditions. Certain soils such as the upper, fine-grained soils encountered on this site, are frost susceptible and could impact pavement performance. Frost susceptible soils are problematic when there is a free water source. If those soils are wetted, the resulting frost heave movements

can be large and erratic. Therefore, pavement design procedures assume dry subgrade conditions by providing proper surface and subsurface drainage.

Subgrade Materials: The fine-grained soils encountered at the site are mainly low to medium plasticity sandy silty clays which are considered a poor support for pavement materials. For design purposes, the soil support value of the subgrade was selected based on an Hveem 'R' value of 20 for flexible (asphalt) pavements and a modulus of subgrade reaction of 130 pci was selected for rigid (portland cement) pavements. The clay soils are considered moderately to highly susceptible to frost action.

Pavement Section: Since anticipated traffic loading information was not available at the time of report preparation, an 18 kip equivalent daily load application (EDLA) of 15 was assumed for combined automobile and truck traffic areas. This loading should be checked by the project civil engineer. A Regional Factor of 2.0 was assumed for this area of Garfield County based on the site terrain, drainage and climatic conditions.

Based on the assumed parameters, the pavement section in areas of combined automobile and truck traffic should consist of 8 inches of high quality base course and 3 inches of asphalt surface. An alternate full-depth asphalt section of 5½ inches can be used.

As an alternative to asphalt pavement and in areas where truck turning movements are concentrated, the pavement section can consist of 5 inches of portland cement concrete.

The above pavement section thickness recommendations are based on the assumption that the subgrade consists of the on-site fine-grained soils. In areas where the subgrade consists of the natural gravel soils, the pavement section can consist of 3 inches of asphalt and 4 inches of aggregate base course or 5 inches of portland cement concrete.

The section thicknesses assume structural coefficients of 0.14 for aggregate base course, 0.44 for asphalt surface and design strength of 4,000 psi for portland cement

concrete. The material properties and compaction should be in accordance with the project specifications.

Subgrade Preparation: Prior to placing the pavement section, the entire subgrade area should be scarified to a depth of 8 inches, adjusted to a moisture content near optimum and compacted to at least 95% of the maximum standard Proctor density. The pavement subgrade should be proofrolled with a heavily loaded pneumatic-tired vehicle. Pavement design procedures assume a stable subgrade. Areas which deform excessively under heavy wheel loads are not stable and should be removed and replaced to achieve a stable subgrade prior to paving.

Drainage: The collection and diversion of surface drainage away from paved areas is extremely important to the satisfactory performance of pavement. Drainage design should provide for the removal of water from paved areas and prevent wetting of the subgrade soils. Uphill roadside ditches should have an invert level at least 1 foot below the road base.

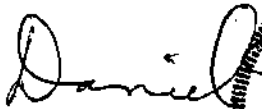
LIMITATIONS

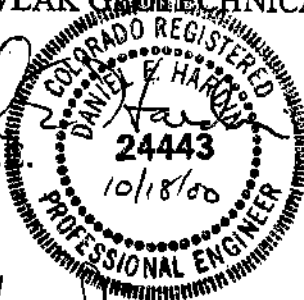
This study has been conducted in accordance with generally accepted geotechnical engineering principles and practices in this area at this time. We make no warranty either expressed or implied. The conclusions and recommendations submitted in this report are based upon the data obtained from the exploratory borings drilled at the locations indicated on Fig. 1, the proposed type of construction and our experience in the area. Our findings include interpolation and extrapolation of the subsurface conditions identified at the exploratory borings and variations in the subsurface conditions may not become evident until excavation is performed. If conditions encountered during construction appear different from those described in this report, we should be notified so that re-evaluation of the recommendations may be made.

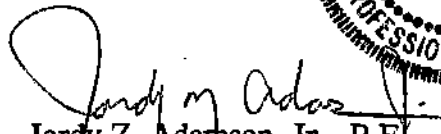
This report has been prepared for the exclusive use by our client for design purposes. We are not responsible for technical interpretations by others of our information. As the project evolves, we should provide continued consultation and field services during construction to review and monitor the implementation of our recommendations, and to verify that the recommendations have been appropriately interpreted. Significant design changes may require additional analysis or modifications to the recommendations presented herein. We recommend on-site observation of excavations and foundation bearing strata and testing of structural fill by a representative of the geotechnical engineer.

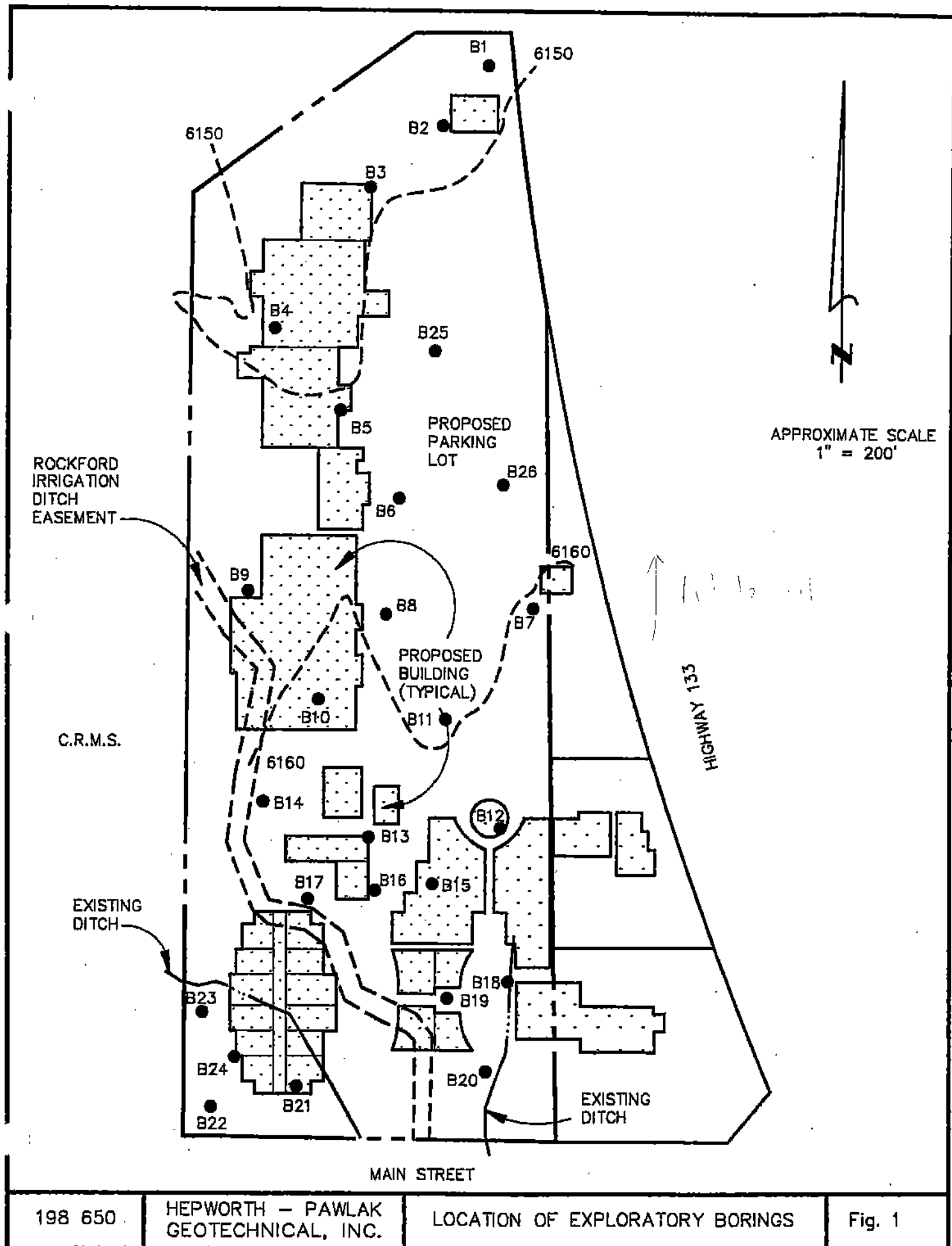
Sincerely,

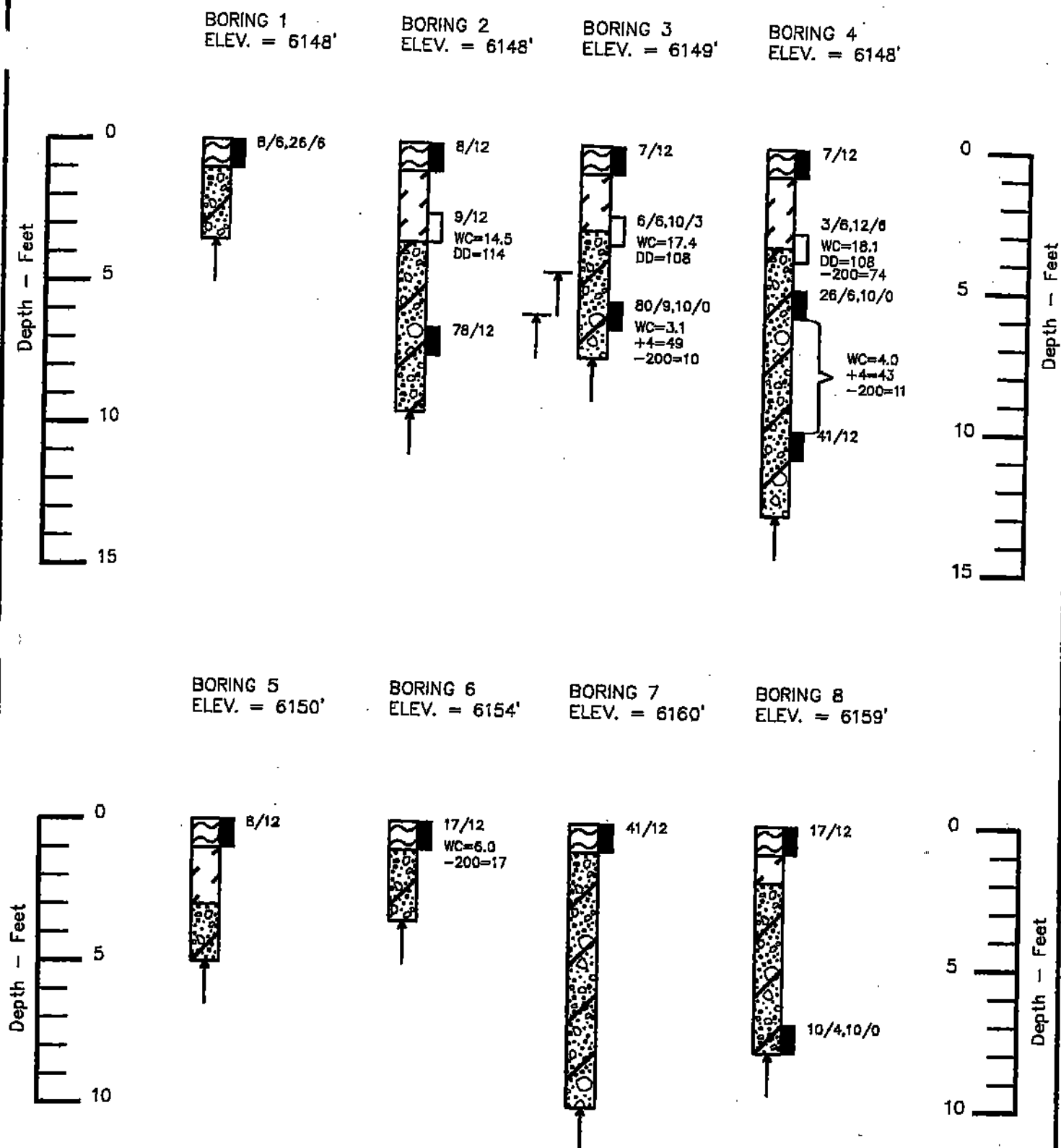
HEPWORTH - PAWLAK GEOTECHNICAL, INC.


Daniel E. Hardin, P.E.
Reviewed by:




Jordy Z. Adamson, Jr., P.E.
DEH/ksw





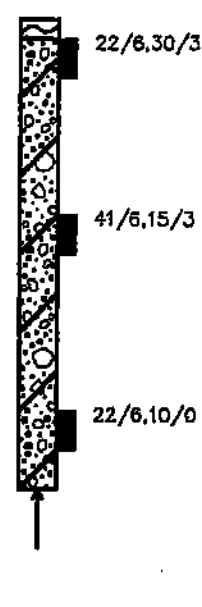
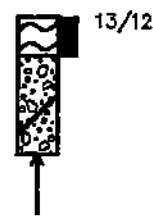
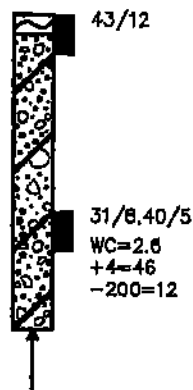
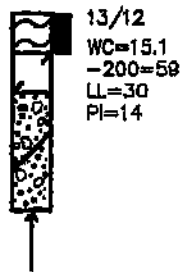
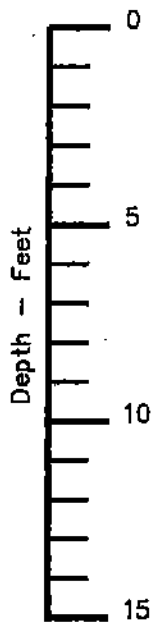
Note: Explanation of symbols is shown on Fig. 5.

BORING 9
ELEV. = 6158'

BORING 10
ELEV. = 6162'

BORING 11
ELEV. = 6160'

BORING 12
ELEV. = 6161'

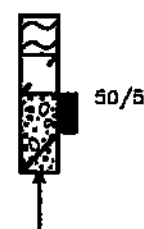
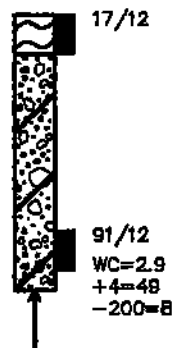
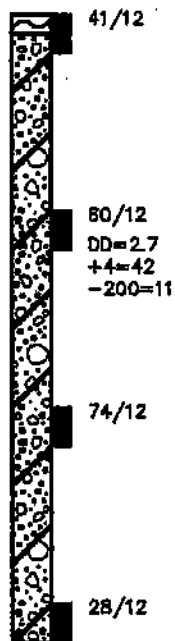
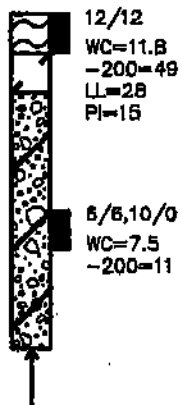


BORING 13
ELEV. = 6162'

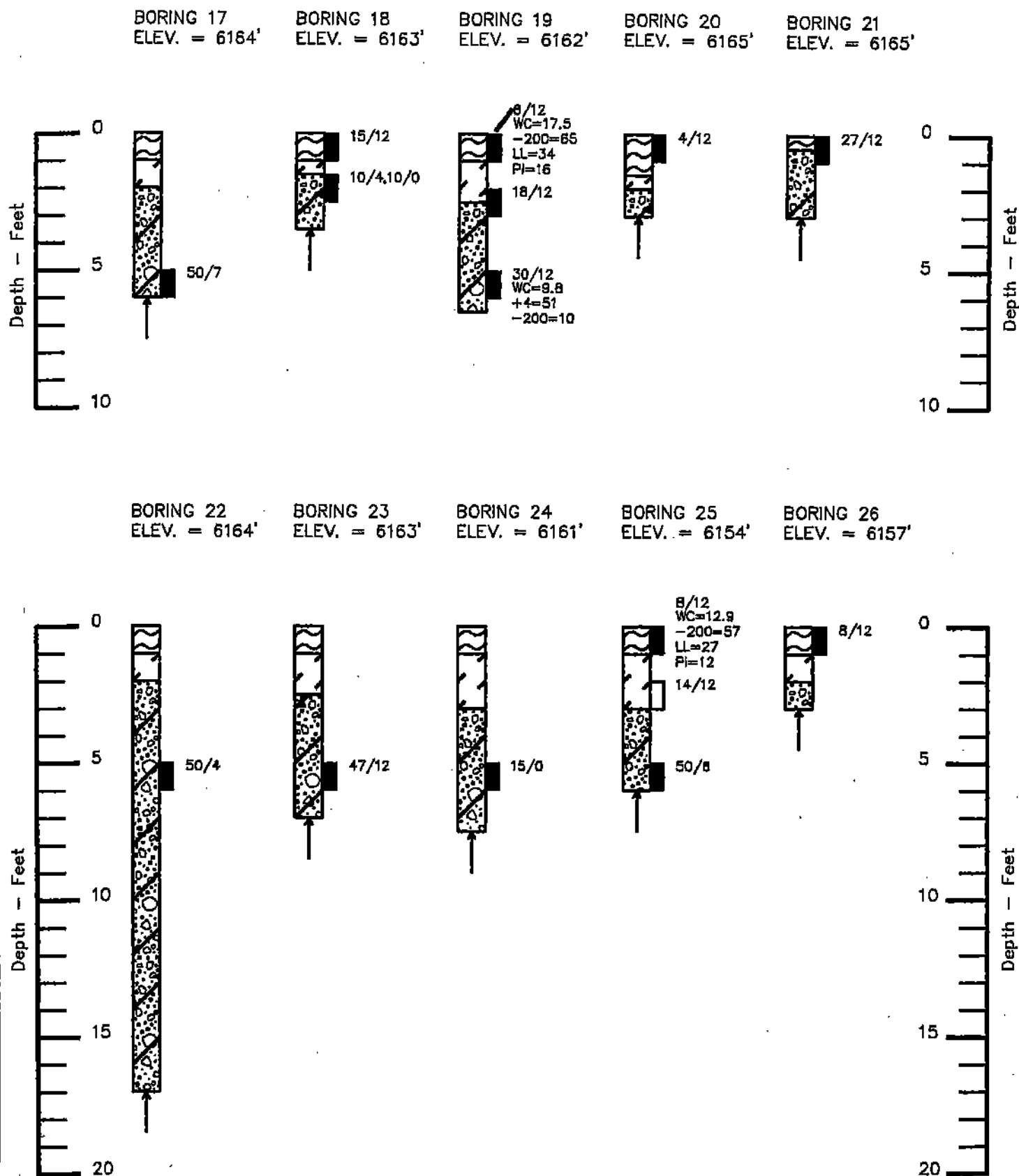
BORING 14
ELEV. = 6162'

BORING 15
ELEV. = 6161'

BORING 16
ELEV. = 6161'



Note: Explanation of symbols is shown on Fig. 5.



Note: Explanation of symbols is shown on Fig. 5.

LEGEND:



TOPSOIL; organic sandy silty clay to organic silty sand and gravel with scattered cobbles, medium stiff to medium dense, moist, dark brown.



CLAY (CL); silty, sandy, medium stiff to stiff, slightly moist to moist, brown.



GRAVEL AND COBBLES (GM-GP); sandy, slightly silty, with boulders, medium dense to dense, slightly moist to moist, brown.



Relatively undisturbed drive sample; 2-inch I.D. California liner sample.



Drive sample; standard penetration test (SPT), 1 3/8-inch I.D. split spoon sample, ASTM D - 1586.

14/12

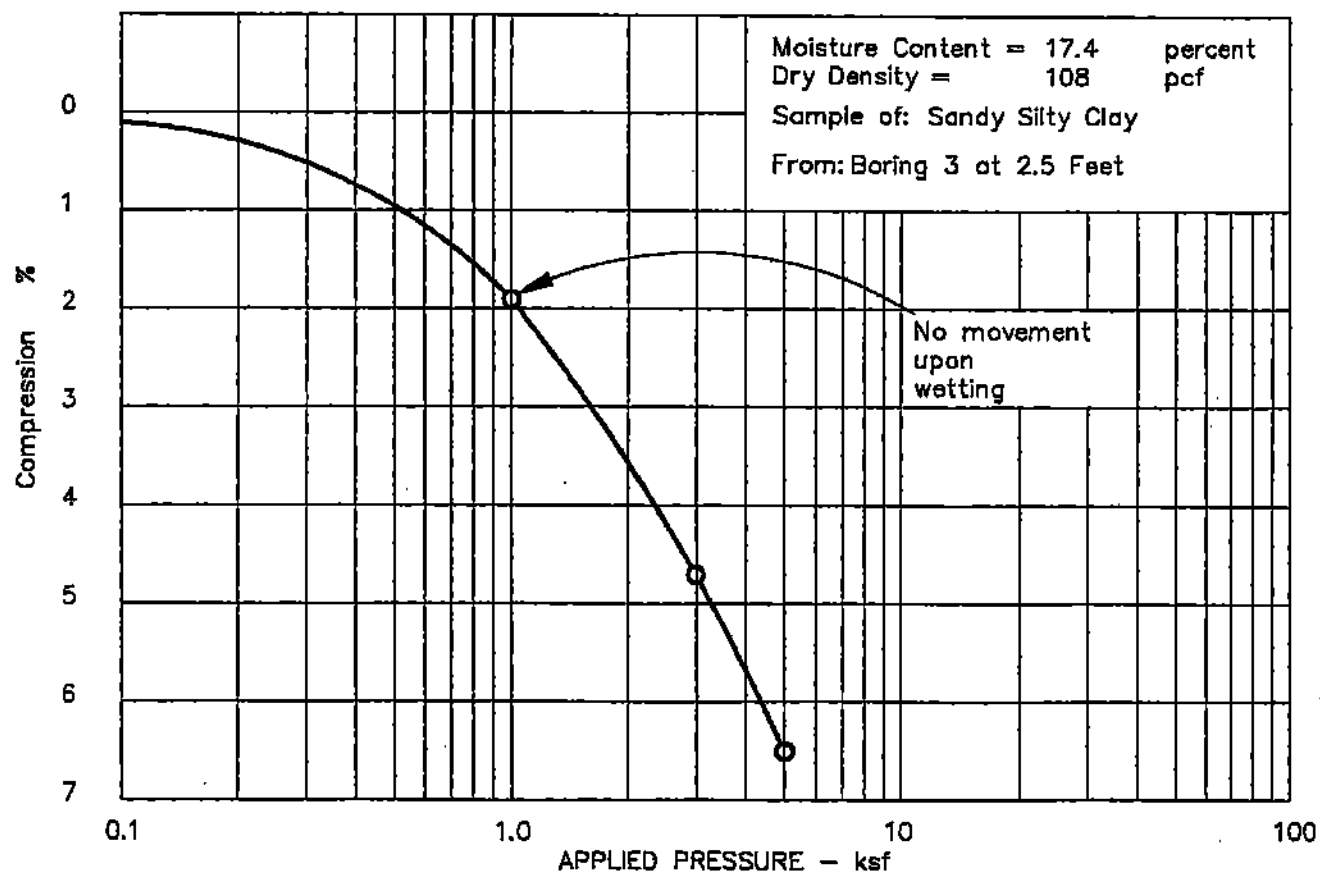
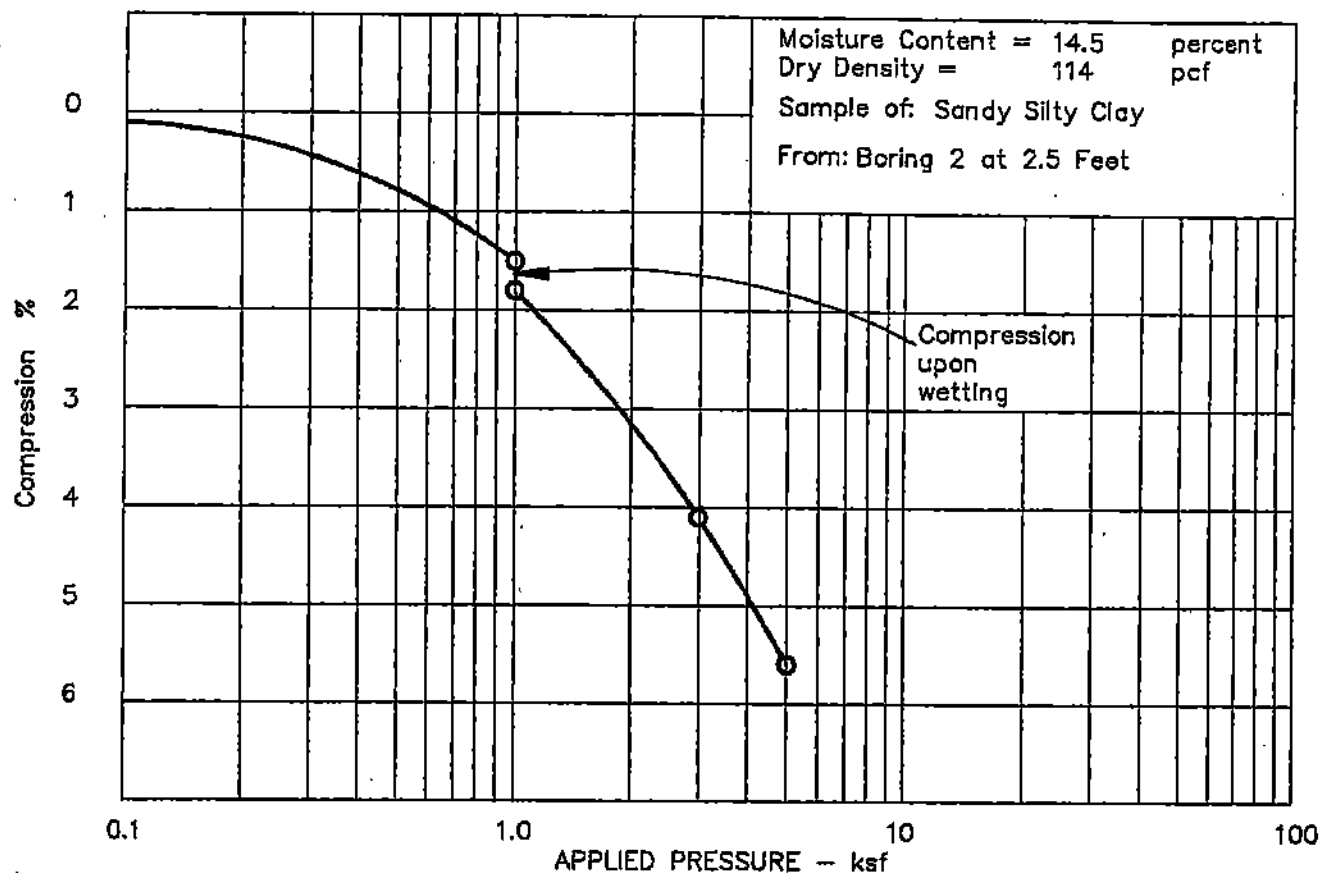
Drive sample blow count; indicates that 14 blows of a 140-pound hammer falling 30 inches were required to drive the California or SPT sampler 12 inches.



Practical rig refusal. Where shown above bottom of log, indicates multiple attempts were made to advance the boring.

NOTES:

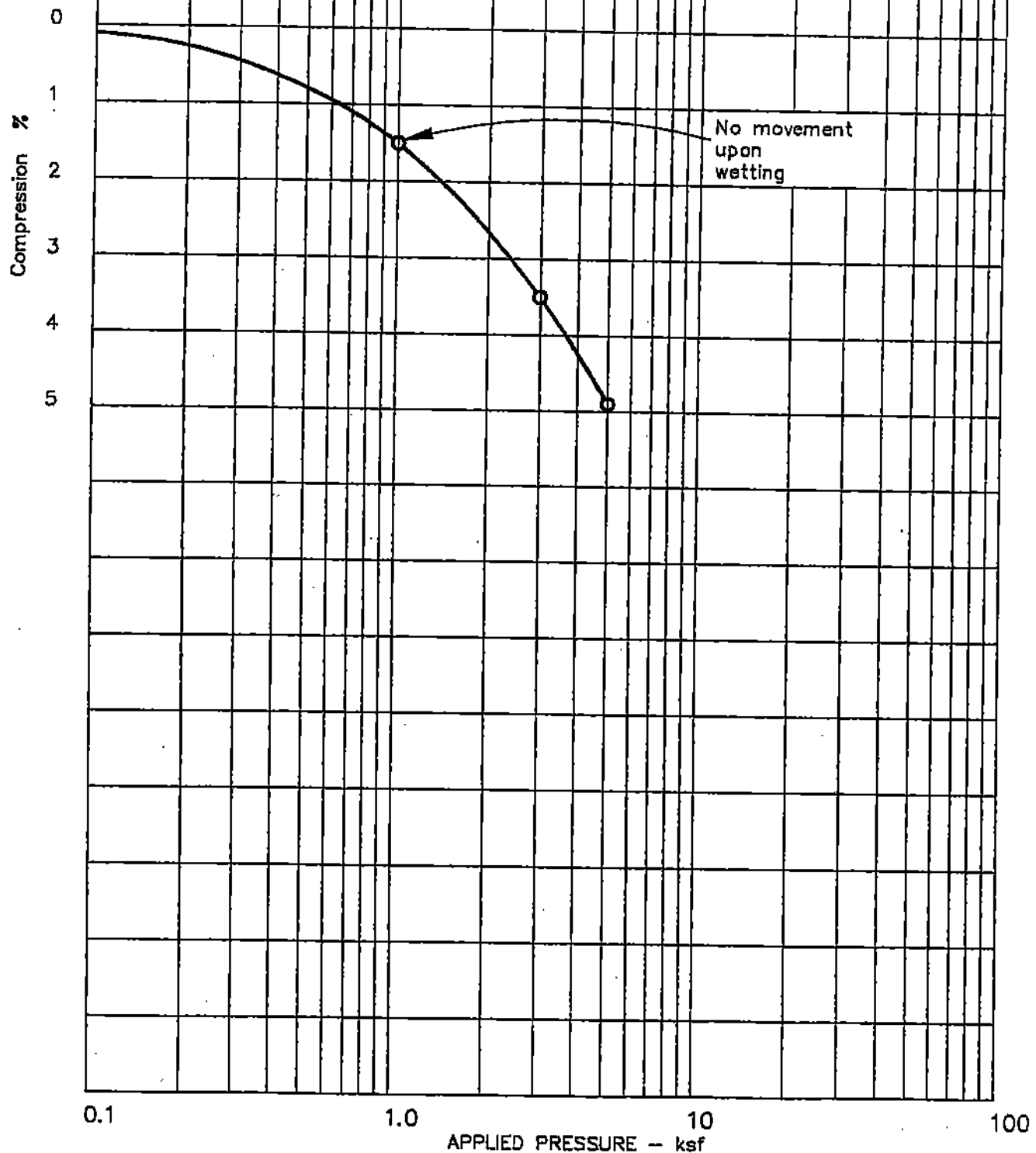
1. Exploratory borings were drilled on September 7, 8, and 14, 1998 with a 4-inch diameter continuous flight power auger.
2. Locations of exploratory borings were surveyed by Sopris Engineering.
3. Elevations of exploratory borings were surveyed by Sopris Engineering.
4. The exploratory boring locations and elevations should be considered accurate only to the degree implied by the method used.
5. The lines between materials shown on the exploratory boring logs represent the approximate boundaries between material types and transitions may be gradual.
6. No free water was encountered in the borings at the time of drilling.
Fluctuation in water level may occur with time.
7. Laboratory Testing Results:
 - WC = Water Content (%)
 - DD = Dry Density (pcf)
 - +4 = Percent retained on No. 4 sieve.
 - 200 = Percent passing No. 200 sieve.
 - LL = Liquid Limit (%)
 - PI = Plasticity Index (%)

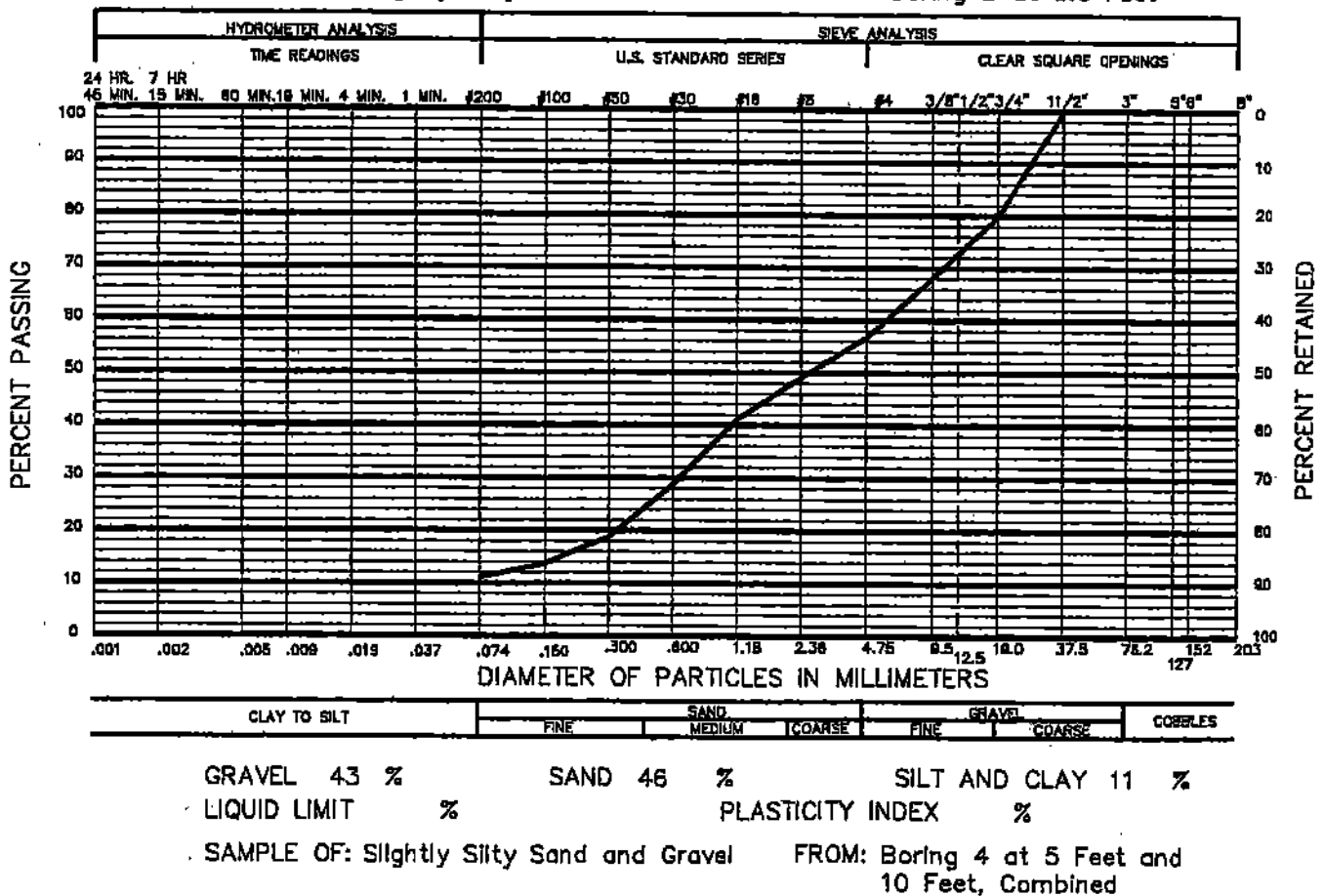
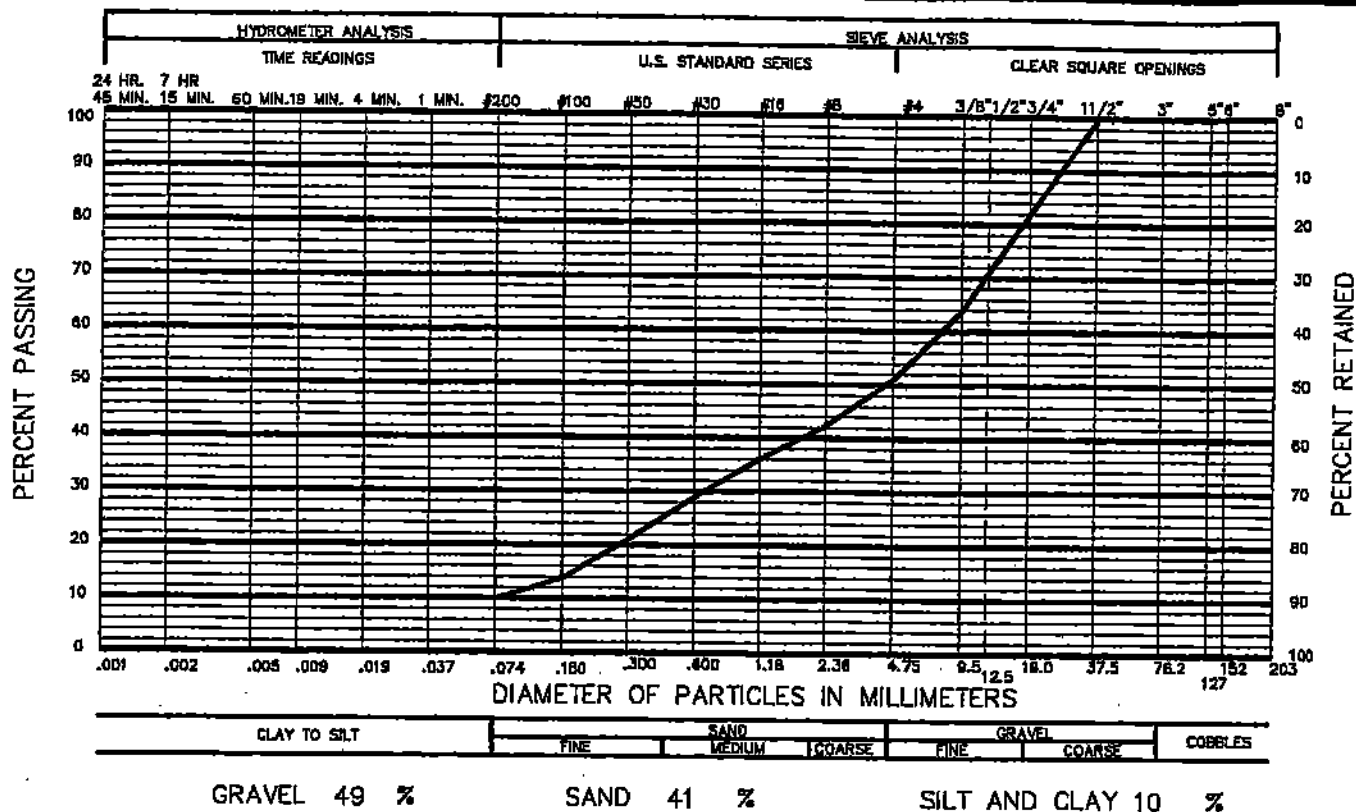


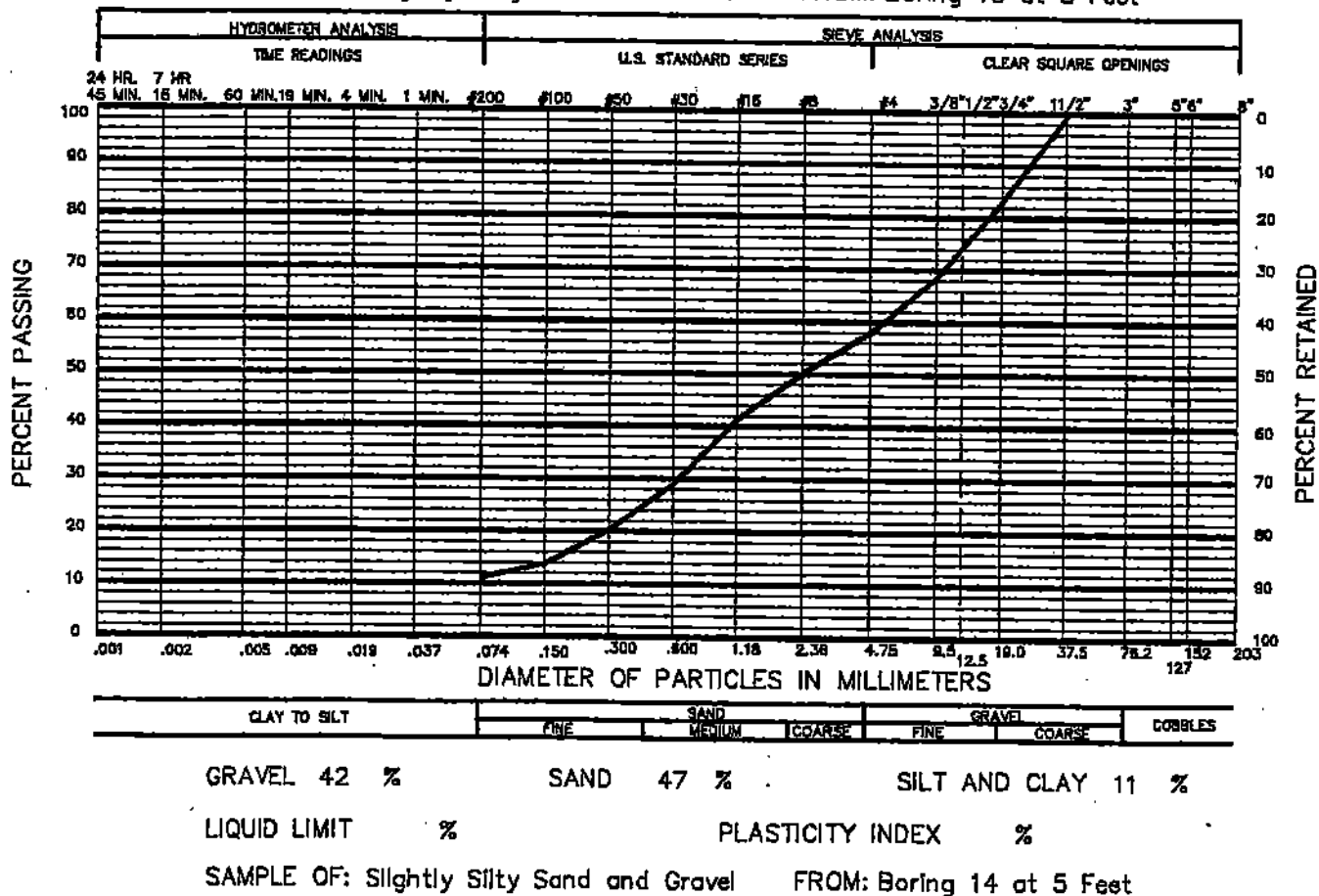
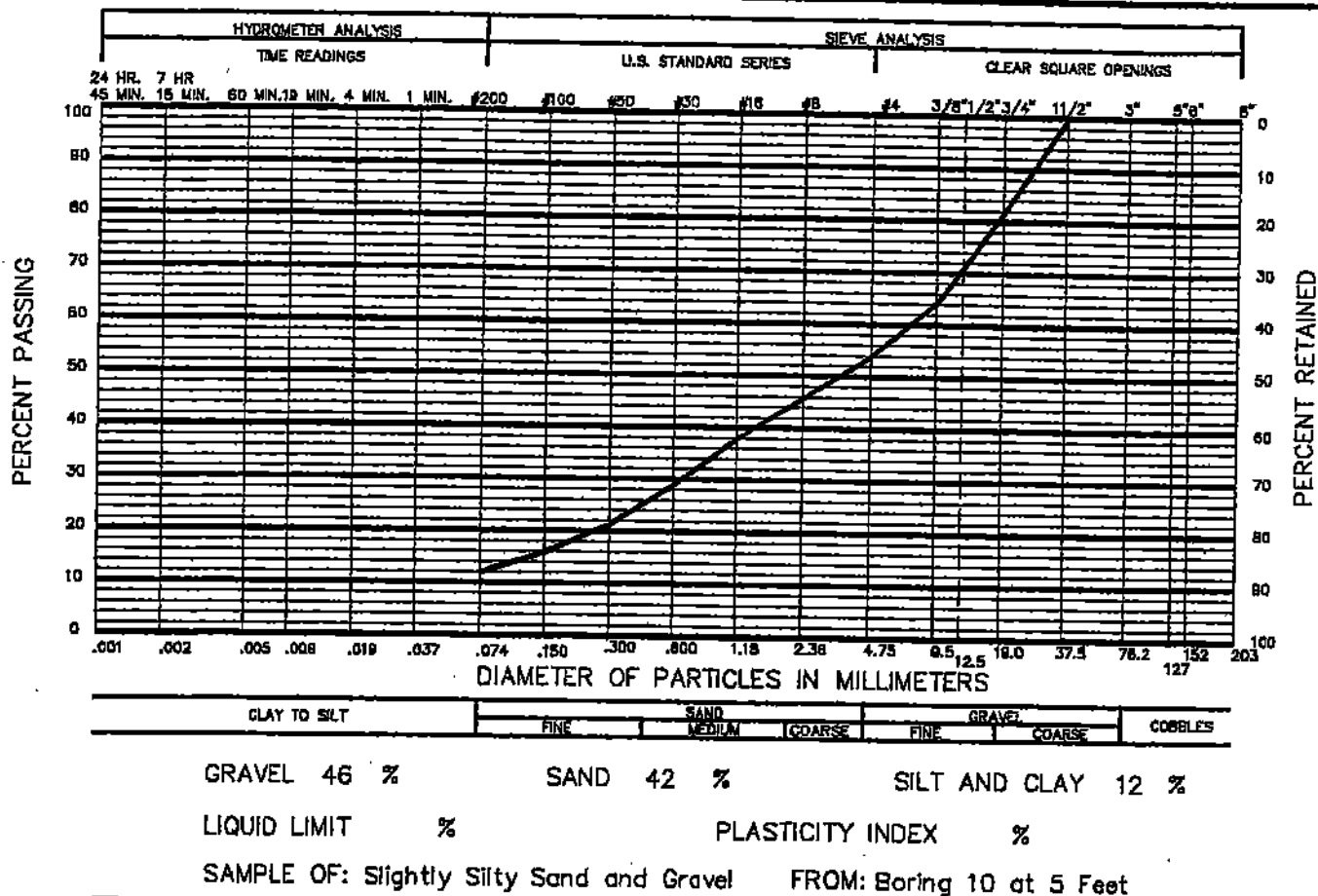
Moisture Content = 18.1 percent
Dry Density Weight = 108 pcf

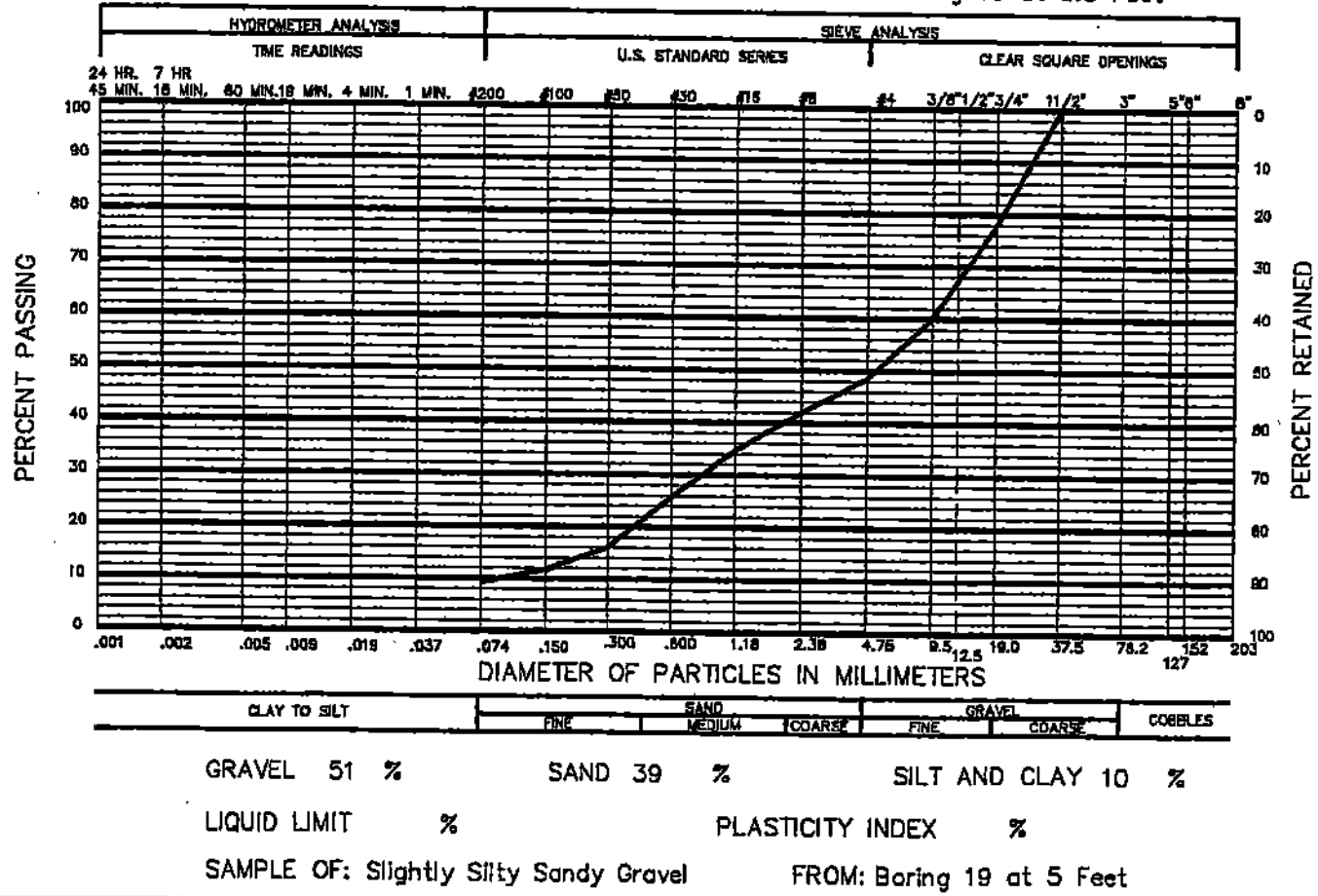
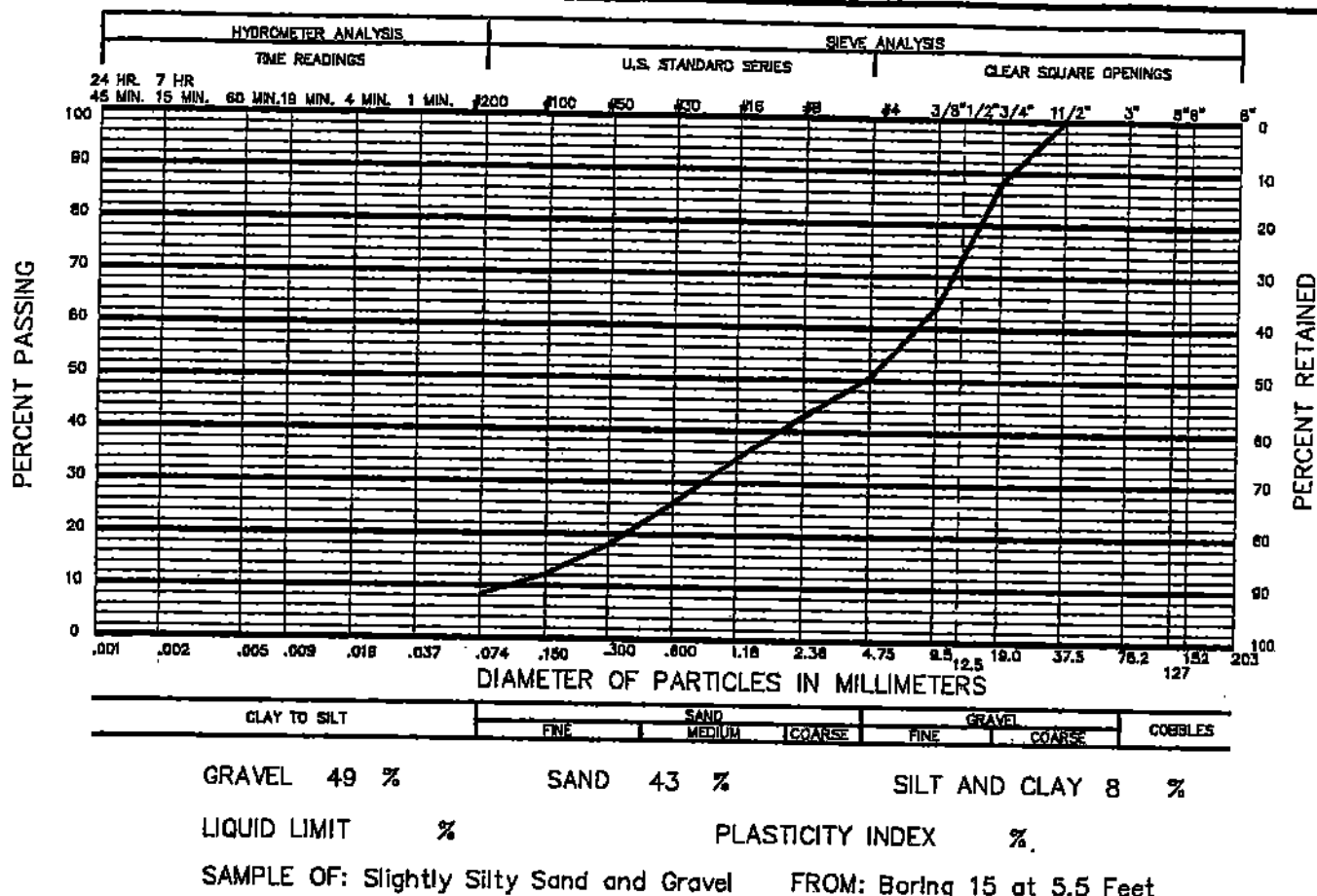
Sample of: Sandy Silty Clay

From: Boring 4 at 3 Feet









HEPWORTH-PAWLAK GEOTECHNICAL, INC.

TABLE I

SUMMARY OF LABORATORY TEST RESULTS

JOB NO. 198 650
Page 1 of 2

BORING	SAMPLE LOCATION		NATURAL MOISTURE CONTENT (%)	NATURAL DRY DENSITY (pcf)	GRADATION		PERCENT PASSING NO. 200 SIEVE	ATTERBERG LIMITS		UNCONFINED COMPRESSIVE STRENGTH (PSF)	AASHTO CLASSIFICATION	SOIL OR BEDROCK TYPE
	DEPTH (feet)				GRAVEL (%)	SAND (%)		LIQUID LIMIT (%)	PLASTIC INDEX (%)			
2	2 1/2		14.5	114								Sandy Silty Clay
3	2 1/2		17.4	108								Sandy Silty Clay
	5 1/2		3.1		49	41	10				A-1-a	Slightly Silty Sand and Gravel
4	3		18.1	108			74					Sandy Silty Clay
	5 & 10 combined		4.0		43	46	11				A-1-a	Slightly Silty Sand and Gravel
6	0		6.0				17					Silty Sand and Gravel
9	0		15.1				59	30	14		A-6 (6)	Sandy Silty Clay
10	5		2.6		46	42	12				A-1-a	Slightly Silty Sand and Gravel
13	0		11.8				49	28	15		A-6 (3)	Silty Clay and Sand
	5		7.5				11					Slightly Silty Sand and Gravel
14	5		2.7		42	47	11				A-1-a	Slightly Silty Sand and Gravel

TABLE I
SUMMARY OF LABORATORY TEST RESULTS

[illegible]