



Planning Commission Agenda

Chair Charles Fletcher
Vice Chair Laurie Van Court
Dan Ahrens
Chris Cote
Chris Teem
Jeremy Begley
James Chase

Thursday, February 9, 2023

6:00 PM

Hybrid Commission Meeting
Town Hall Council Chambers
100 N. Wilcox Street
Castle Rock, CO 80104
Online: <https://crgov.webex.com/crgov>
Phone-in: 720-650-7664
Meeting Number: 2481 156 8576
Meeting Password: 2023PCMeeting

This hybrid meeting is open to the public and will be held in a virtual format in accordance with the Board and Commission Electronic Participation, Connected and Hybrid Meeting Policy. Public may choose to attend in person at Town Hall or electronically or by phone if preferred. This meeting will be hosted online and can be accessed using link and meeting information above.

To access full meeting details, please visit:

[www.crgov.com/Town Government/Boards and Commissions/Planning Commission](http://www.crgov.com/Town%20Government/Boards%20and%20Commissions/Planning%20Commission)
and click on the "View current agenda packet" link.

Remote participants please sign up to speak by sending an email to the Development Services Planning Manager, Kevin Wrede (kwrede@crgov.com) no later than 1 pm on the day of the hearing, to be added to the list of speakers. Public comments may also be given in person or submitted in writing via email, to be included in the public record.

**** ALL TIMES ARE APPROXIMATE ****

5:30 pm DINNER FOR BOARD MEMBERS

6:00 pm CALL TO ORDER / ROLL CALL

6:02 pm CERTIFICATION OF MEETING

6:03 pm APPROVAL OF MINUTES

[PC 2023-001](#) Minutes: December 22, 2022 Planning Commission Meeting Minutes

6:05 pm PUBLIC HEARING ITEMS

[PC 2023-002](#) Site Development Plan, The Meadows Filing No. 19 – Parcel 2N,
Amendment No. 1, Lot 3C [5.48 Acres Senior Multifamily Located Northwest
of North Meadows Drive and Timber Mill Parkway]

6:45 pm TOWN COUNCIL LIAISON UPDATE

6:50 pm DESIGN REVIEW BOARD UPDATE

6:55 pm COMMISSION ITEMS

Check for quorum for upcoming meetings

1. Feb. 23, 2023

2. Mar. 9, 2023

7:00 pm STAFF UPDATE/PLANNING COMMISSION DISCUSSION ITEMS

7:05 pm ADJOURN



Town of Castle Rock

Agenda Memorandum

Agenda Date: 2/9/2023

Item #: File #: PC 2023-001

To: Members of the Planning Commission

From: Planning Commission Administrator

December 22, 2022 Planning Commission Meeting Minutes

Executive Summary

Attached are the meeting minutes from the December 22, 2022 Planning Commission meeting for your review and approval.



Planning Commission Meeting Minutes

Chair Charles Fletcher
Vice Chair Laurie Van Court
Dan Ahrens
Chris Cote
Chris Teem
Jeremy Begley
James Chase

Thursday, December 22, 2022

6:00 PM

Hybrid Commission Meeting
Town Hall Council Chambers
100 N. Wilcox Street
Castle Rock, CO 80104
Online: <https://crgov.webex.com/crgov>
Phone-in: 720-650-7664
Meeting Number: 2495 504 7227
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**** ALL TIMES ARE APPROXIMATE ****

DINNER FOR BOARD MEMBERS

CALL TO ORDER / ROLL CALL

The meeting was called to order at 6:01 p.m. by Vice Chair Van Court.

Present 4 - Chair Charles Fletcher, Vice Chair Laurie Van Court, Chris Teem, and James Chase

Not Present 3 - Dan Ahrens, Chris Cote, and Jeremy Begley

Attendance 5 - Jason Gray, Sandy Vossler, Kevin Wrede, Julie Parker, and Sandra Aguilar

CERTIFICATION OF MEETING

Mr. Wrede confirmed the meeting and agenda has been noticed in accordance with the Open Meetings Law.

APPROVAL OF MINUTES

[PC 2022-021](#) Minutes: December 8, 2022 Planning Commission Meeting Minutes

Attachments: [PC12.08.2022Minutes-DRAFT](#)

Moved by Fletcher, seconded by Chase to accept the Planning Commission meeting minutes for December 8, 2022 as presented. The motion passed by the following vote: 4 to 0

Yes: 4 - Chair Fletcher, Vice Chair Van Court, Teem, and Chase

Not Present: 3 - Ahrens, Cote, and Begley

PUBLIC HEARING ITEMS

[PC 2022-022](#) Site Development Plan: The Meadows Filing 20, Parcel 1 (Lot 2A-1A, Block 3, Phase 1 - Amendment No. 16), Parcel 2 (Lot 1A-2, Block 3, Phase 1 - Amendment No. 10) and Parcel 3 (Lot 1B-1, Block 2, Phase 1 - Amendment No. 12) [3.93 Acres Mixed Use/Multifamily - Located Northeast, Southeast and Southwest of the Intersection of Mercantile and Future Streets in the Meadows Town Center]

Attachments: [Staff Memorandum](#)
[Attachment A - Vicinity Map](#)
[Attachment B - Site Development Plan](#)
[Attachment C - Surrounding Uses](#)
[Attachment D - Town Center Uses](#)
[Attachment E - Town Center Parking Requirements](#)
[Attachment F - TC Parking Allocation](#)
[Attachment G - Traffic Impact Analysis](#)

Ms. Vossler presented Public Hearing Item PC2022-022 Site Development Plan for Meadows Filing 20, multi-use development. Staff recommends approval as it meets criteria.

Applicant: Stephanie Fuentes, Ashley Biddell and Karl Stout with Garrett Co. provided additional details.

Public Comment: none

Moved by Teem, seconded by Fletcher to recommend approval of PC2022-022 Site Development Plan for Meadows Filing 20, Parcel 1, Parcel 2 and Parcel 3, as presented. The motion passed by the following vote: 4 to 0

Yes: 4 - Chair Fletcher, Vice Chair Van Court, Teem, and Chase

Not Present: 3 - Ahrens, Cote, and Begley

TOWN COUNCIL LIAISON UPDATE

None

DESIGN REVIEW BOARD UPDATE

None

COMMISSION ITEMS

Check for quorum for upcoming meetings

1. Jan. 12, 2023

2. Jan. 26, 2023

No conflicts from the Commission members present for the upcoming meetings.

STAFF UPDATE/PLANNING COMMISSION DISCUSSION ITEMS

None.

ADJOURN

Moved by Vice Chair Van Court, seconded by Chair Fletcher, that the Planning Commission be adjourned at 6:27 p.m. The motion passed by the following vote: 4 to 0

Yes: 4 - Chair Fletcher, Vice Chair Van Court, Teem, and Chase

Minutes approved by the Planning Commission on _____ by a vote of _____ in favor, _____ opposed, with _____ abstention(s).

Planning Commission



Town of Castle Rock

Agenda Memorandum

Agenda Date: 2/9/2023

Item #: **File #:** PC 2023-002

To: Members of the Planning Commission

From: BrieAnna Simon, Senior Planner, Development Services Department

Site Development Plan, The Meadows Filing No. 19 - Parcel 2N, Amendment No. 1, Lot 3C [5.48 Acres Senior Multifamily Located Northwest of North Meadows Drive and Timber Mill Parkway]

Executive Summary

Shopworks Architecture, on behalf of the developer Ulysses Development Company, is seeking approval of a Site Development Plan (site plan or SDP) for an affordable senior multifamily development. The property proposed for development consists of one lot located northwest of North Meadows Drive and Timber Mill Parkway, and is approximately 5.48 acres. The site plan proposes 200 dwelling units within a 183,238 square foot building.

Please see the attached Staff Memorandum and associated attachments for full project details.

Attachments

Staff Memorandum

Attachment A: Vicinity Map

Attachment B: Site Development Plan

Attachment C: Colored Elevations

Attachment D: Neighborhood Meeting Summaries

Attachment E: Traffic Conformance Letter

Attachment F: Drainage Conformance Letter

AGENDA MEMORANDUM

To: Planning Commission

From: BrieAnna Simon, Senior Planner, Development Services Department

Title: **Site Development Plan, The Meadows Filing No. 19 – Parcel 2N, Amendment No. 1, Lot 3C [5.48 Acres Senior Multifamily Located Northwest of North Meadows Drive and Timber Mill Parkway]**

Executive Summary

Shopworks Architecture, on behalf of the developer Ulysses Development Company, is seeking approval of a Site Development Plan (site plan or SDP) for an affordable senior multifamily development. The property proposed for development consists of one lot located northwest of North Meadows Drive and Timber Mill Parkway, and is approximately 5.48 acres (Attachment A). The site plan proposes 200 dwelling units within a 183,238 square foot building (Attachment B).



Figure 1: Vicinity Map

The proposal is in conformance with the approved Meadows Planned Development (PD), 4th Amendment Plan and Zoning Regulations, and with Town Municipal Code and technical criteria. All staff and external comments have been addressed through the review process.

Background

Zoning Regulations

The Meadows is a master planned subdivision located in the northwest portion of the Town of Castle Rock and is zoned for 10,644 dwelling units. To date, approximately 7,800 dwelling units have received a Certificate of Occupancy. The subject property is located in the

Commercial, Office, Industrial (C-O-I) Use Area of the Meadows Planned Development, 4th Amendment. The C-O-I Use Area is zoned for mixed-use development, where senior housing and other health care or senior living facilities are a permitted use. The Meadows PD 4th Amendment does not set a maximum number of dwelling units per acre for the C-O-I Use Area.

Existing Conditions and Surrounding Uses

The subject lot is currently part of an undeveloped area with the Meadows C-O-I. The surrounding property to the south is a residential development part of Meadows Filing 8. The property to the north is floodplain and open space with portions being dedicated to the Town of Castle Rock. The property to the west has an active site development plan application for the Front Range Christian Church. The property to the east remains undeveloped at this time.



Figure 2: Surrounding Uses

Site Development Plan Discussion

Use

The subject lot is located in the C-O-I Use Area of the Meadows PD, 4th Amendment. A wide range of non-residential uses are permitted including restaurants, retail, office, research facilities and warehouses. Permitted uses also include hospital, nursing homes, assisted living facilities, senior housing and other health care or senior living facilities.

The proposed lot is located on Timber Mill Parkway, where 200 affordable senior living units in a single, 4-story building are proposed. The units will be a combination of one and two bedrooms. The independent living complex will be income and age restricted, and developed in partnership with the Douglas County Housing Partnership. Onsite amenities to include covered, wrap around porch, outdoor deck, flower and garden beds, outdoor grilling and gathering area, and indoor fitness and activity center. No commercial uses are proposed on this site.

Development Standards

The proposed use and number of units complies with the Meadows PD, 4th Amendment development standards. Per the zoning, the maximum height allowed is 60 feet and the setbacks are to be established with the site plan. The PD zoning does not establish a maximum density by lot or use.

The site plan complies with the established development standards. The maximum height proposed is 57' 4 5/8". The setbacks are being set with the proposed site plan as shown in the table.

The Zoning Comparison Table in Figure 3 lists the standards required by the PD Zoning and demonstrates that the plan complies with all of the standards. This table is also shown on the Cover Sheet of the Site Development Plan (Attachment B).

ZONING COMPARISON AND DEVELOPMENT STANDARDS		
ZONING	THE MEADOWS PD AMENDMENT NO.4-RECEPTION NO. 2003102929 ZONING	
USE AREA		
	ALLOWANCE/REQUIRED	THE MEADOWMARK SDP PROPOSED
USES	C-O-I	C-O-I
SITE SETBACKS		
MIN. FRONT YARD SETBACK (SOUTH)	N/A	20.00'
MIN. REAR YARD SETBACK (NORTH)	N/A	5.00'
MIN. SIDE YARD SETBACK (EAST & WEST)	N/A	5.00'
MIN. SIDE TO STREET SETBACK	N/A	N/A
BUILDING SETBACKS		
MIN. FRONT BLDG SETBACK (SOUTH)	N/A	96.01'
MIN. REAR BLDG SETBACK (NORTH)	N/A	78.41'
MIN. EAST SIDE BLDG SETBACK	N/A	82.03'
MIN. WEST SIDE BLDG SETBACK	N/A	68.71'
MAX. BUILDING HEIGHT	60'-0"	57'-4 5/8"
MAX. FLOOR AREA RATIO	60%	19%
MIN. PARKING SPACES: TOTAL REQUIRED	206	255
1 SPACE PER UNIT (200 UNITS)	200	249
1 SPACE PER EMPLOYEE MAX SHIFT	6	6
STANDARD PARKING SPACES [dimensions]		239 [9' x 18']
HANDICAP PARKING SPACES [dimensions] (REQUIRED QTY BASED ON 2018 IBC)	13 ACCESSIBLE [8.5x18'] 3 VAN ACCESSIBLE [9x18']	13 ACCESSIBLE [8.5x18'] 3 VAN ACCESSIBLE [9x18']
TOTAL BUILDING SQUARE FOOTAGE		183,239 S.F.
LEVEL 1 FLOOR PLATE SQUARE FOOTAGE		46,199 S.F.
DENSITY CALCULATION		36.5 UNITS/ACRE
DWELLING UNITS		200 DU
SITE UTILIZATION (SHOW SF/ACREAGE AND %)		
TOTAL LOT AREA	238,522.039 S.F. / 5.48 AC / 100%	
LOT COVERAGE		
BUILDING(S)	46,199 S.F. / 1.06 AC / 19%	
INTERNAL DRIVES AND PARKING LOT	92,148 S.F. / 2.12 AC / 39%	
SIDEWALKS, TRASH ENCLOSURES, MISC.	24,860 S.F. / 0.57 AC / 10%	
COMMON PUBLIC ACCESS DRIVES	7,430 S.F. / 0.17 AC / 3%	
ROW COVERAGE	5,941 S.F. / 0.14 AC / 2%	
LANDSCAPE/OPEN SPACE COVERAGE	67,885 S.F. / 1.56 AC / 28%	
OTHER COVERAGE:	N/A	

Figure 3: Zoning Comparison Table

The Meadows PD, 4th Amendment Zoning Regulations refer the parking regulations for the C-O-I Use Area to the Municipal Code requirements found in Section 17.54. On-site parking for housing of senior citizens within independent living facility for residents owning vehicles requires one space per unit, plus one space per employee on maximum shift. The proposed site is required to have 206 parking spaces on-site, and is providing 255 spaces.

Lighting Plan

The site lighting will be comprised of parking lot pole fixtures, exterior building wall fixtures, and under-canopy balcony and porch fixtures. The lighting plan meets the Municipal Code requirements for full cut-off features, lumen maximums, and photo-sensor controls for curfew hours.

Landscaping

Multifamily developments are required to landscape 20% of the site, parking lots must provide landscaping for 10% of the lot and streetscape is required along the street frontages. Due to the existing easements along Timber Mill Parkway, street trees could not be accommodated. A Technical Criteria Variance (TCV) was issued to relocate the required street trees to other areas of the site. The proposed development meets the Town's landscape requirements.

Architectural Design

The community will consist of a single, 4-story building with wings designed around a central courtyard. The architectural design of the building includes 360-degree architecture, a similar color palette to the area, exterior stone veneer, covered entryways and varied rooflines. Balconies have been incorporated into the apartment building design. Wall-mounted gas and electrical meter gangs will be painted to match the surrounding wall.

Interface Regulations (as applicable)

The Residential/Non-Residential Interface Regulations or the Dissimilar Residential Interface Regulations are not applicable to the development.

Skyline and Ridgeline Protections

The lot proposed for development in this site plan is not located within the Skyline/Ridgeline Protection Area.

Open Space and Public Land Dedication (as applicable)

The open space and public land dedications for the Meadows C-O-I have already been satisfied with the dedications identified at the time of the Meadows PD, 4th Amendment approval in 2003. No additional dedications are required with this Site Development Plan.

Traffic Impact Analysis and Mitigation

A transportation impact analysis (TIA) for Meadows 19 north was submitted on September 27, 2021. This analysis evaluated uses for ten different parcels on Timber Mill Parkway.

This parcel, designated as D1 in the study was also evaluated in a conformance letter dated June 7, 2022. The lot lines have changed but the use is consistent with the master TIA from 2021.

Public Works is in agreement the conformance letter and the proposed use are consistent with the master study. Timber Mill Parkway and N. Meadows Drive will support the proposed traffic volumes to be generated by this proposed use, no additional roadway improvements are needed at this time.

Utilities

The applicant was required to submit a Phase II Drainage Report and a Preliminary Utility Report with this site plan application. Castle Rock Water staff has reviewed and accepted both reports and concurs that adequate water, wastewater, and storm sewer infrastructure exists, or is proposed with this project, to serve the property.

Notification and Outreach

Public Notice

The public noticing requirements for this proposal have been satisfied. Public hearing notice signs for the Planning Commission public hearing was posted on the property on Wednesday, January 25, 2023. Written notice letters were sent to property owners and Homeowner Associations (HOA) within 500 feet of the property, at least 15 days prior to the Planning Commission public hearing. Town staff published notice of the Planning Commission public hearing on the Town's website and provided information about the proposal on the Town's *Development Activity* interactive map.

Neighborhood Meetings

The applicant held neighborhood meetings as required by the Municipal Code. The first neighborhood meeting was held on May 16, 2022, prior to the submittal of the SDP land use application. The meeting was conducted in a hybrid format. Three members of the public attended the meeting in person and four attended virtually. General questions on amenities, parking, project schedule were asked.

The second neighborhood meeting was held on August 30, 2022 in a hybrid format. One members of the public attended the meeting virtually. Questions were asked on financing and project timing.

The third and final neighborhood meeting was held on January 11, 2023 in a virtual format only. Six members of the public attended the meeting. Questions were asked concerning environmental impacts of the project. Overall support was shown for the project.

External Referrals

There are no outstanding external referral comments. External referrals were sent to local service providers and Douglas County agencies, as well as, the Meadows Community Association. Douglas County Planning and Addressing had minor comments that have been addressed. CORE Electric provided their standards for placement of transformer boxes that will be implemented on the Construction Drawings. The remainder of the agencies contacted for comments did not respond.

Analysis

This staff analysis takes into account the representations made in the application and attachments submitted to date.

SDP Review and Approval Criteria and Analysis 17.38.040

A. Community Vision/Land Use Entitlements.

1. Generally, conforms to the Town's guiding documents that include, but are not limited to, Town Vision, Comprehensive Master Plans, Sub Area Plans, Design Guidelines, Corridor Plans and any other guiding document so long as the application of such document does not restrict the project's entitle use(s) and density.
2. Complies with existing Intergovernmental Agreements applicable to the development proposed.
3. Complies with any applicable Zoning Overlay Regulations and, if applicable, Skyline/Ridgeline Regulations.
4. Complies with the approved Planned Development Plan and Zoning Regulations.
5. Conforms to the Town's architectural goals by proposing architectural details that incorporate the use of high quality materials in a unique and varied design, while eliminating monolithic expanses of walls and rooflines through the use of varying planes and architectural projections to ensure a complete 360-degree architectural design.
6. Complies with all other relevant requirements of the CRMC.

Analysis: The proposed SDP meets this criterion. It generally conforms to the Town's 2030 Vision and Comprehensive Master Plan by adding to the Town's diversified housing types. As detailed in this report, the proposal complies with the use and development standards of the Meadows PD, 4th Amendment PD Plan and Zoning Regulations. The architectural design meets the requirements of both the Meadows Zoning Regulations and the goals of the Town's guiding documents. This site plan is not subject to an intergovernmental agreement, the Skyline/Ridgeline Ordinance, the Residential/Non-Residential Interface Regulations or the Dissimilar Residential Regulations. The proposal does comply with all other relevant requirements of the Castle Rock Municipal and technical criteria, as summarized in this report and asserted in the following criteria.

B. Site Layout.

1. Conforms to Chapter 17.50 Residential/Non-Residential Interface of the CRMC.
2. Site design shall be designed to maintain pedestrian and vehicle safety, provide for adequate fire safety, and mitigate impacts upon adjacent properties by ensuring all vehicular, fire and mitigation regulations contained within the CRMC, including technical criteria, have been met.
3. Provides adequate parking, on-site circulation and loading in accordance with Town regulations.
4. Provides appropriate screening and/or enclosure of outdoor storage of merchandise/materials, loading areas, trash receptacles, mechanical units, site utility equipment and building mounted utility hardware.
5. Provides adequate site design to protect major environmental characteristics that would include unique topographic features and significant vegetation where possible.

Analysis: The proposed SDP meets this criterion. The SDP meets all relevant site layout requirements outlined in the governing zoning and the Town's Municipal Code. Parking lots are designed for safe vehicle and pedestrian circulation. Castle Rock Fire has reviewed and

approved the site design for access and fire safety. Proper screening has been provided for trash enclosures, rooftop mechanical units, and meter gangs.

C. Circulation and Connectivity.

1. Complies with all CRMC and technical criteria associated with circulation and connectivity.
2. Complies with all Fire regulations associated with land development.
3. Provides for pedestrian and bicycle traffic in a safe and convenient manner.
4. Provides for a high level of pedestrian connectivity between neighborhoods, schools, trails/open space and commercial areas.

Analysis: The proposed SDP meets this criterion. The SDP provides appropriate vehicular entrances into the property, with interior drive aisles and parking that meet Town standards. Sidewalks will be constructed adjacent to the public right of way, and interior walkways will provide additional pedestrian connections to the residential units and retail and restaurant uses.

D. Services Phasing and Off-site Impact.

1. Complies with any phasing requirements associated with the approved zoning for the property. Provides phased improvements in a logical and efficient manner.
2. Adequate water resources have been conveyed or purchased. Existing or proposed water and wastewater systems can support the proposed development pattern, uses and density.
3. Existing or proposed stormwater systems can support the development and comply with applicable regulations.
4. Provides adequate consideration for the future extension of streets and utilities to adjacent properties.
5. Identifies and appropriately provides on-site and off-site public improvements to mitigate traffic impacts as required by the CRMC and technical criteria.

Analysis: The proposed SDP meets this criterion. The SDP provides adequate and efficient utility plans for water, stormwater and wastewater, which considers existing conditions of the site and necessary ingress and egress improvements.

E. Open Space, Public Lands and Recreation Amenities.

1. Provides adequate trail systems in terms of internal circulation and appropriate external connections deemed necessary by the Town to achieve connectivity goals.
2. Ensures functional and accessible open space, consistent with the overall open space plan for development and preserves significant natural features.
3. Ensures appropriate buffering, utilizing open space and/or setbacks to lessen any
4. Identified negative impacts.

Analysis: The proposed SDP meets this criterion. No additional land dedications for open space, parks or trails are required with this site plan.

Budget Impact

Development of the property will generate review and impact fees.

Findings

All staff review comments and external referral comments have been addressed. Staff finds that the Site Development Plan, as proposed

- Generally conforms with the objectives of the Town Vision and the Comprehensive Master Plan,
- Meets the requirements of the Meadows Preliminary PD Site Plan and PD Zoning Regulations, Amendment No. 4, and
- Meets the Site Development Plan review and approval criteria of the Municipal Code and the Town's technical criteria.

Recommendation

Staff recommends that Planning Commission recommend approval of the Site Development Plan, as proposed, to Town Council.

Proposed Motions

Option 1: Approval

"I move to recommend approval of the Meadows Filing No. 19 – Parcel 2N, Amendment No. 1, Lot 3C Site Development Plan, as presented."

Option 2: Approval with Conditions

"I move to recommend approval of the Meadows Filing No. 19 – Parcel 2N, Amendment No. 1, Lot 3C Site Development Plan, with the following conditions:" (list conditions)

Option 3: Continue item to next hearing (need more information to make decision)

"I move to continue this item to the Planning Commission meeting on [date certain], 2023, at 6 pm."

Attachments

Attachment A: Vicinity Map
Attachment B: Site Development Plan
Attachment C: Colored Elevations
Attachment D: Neighborhood Meeting Summaries
Attachment E: Traffic Conformance Letter
Attachment F: Drainage Conformance Letter

Town Boundary

Subject Property

Timber Mill Parkway

N Meadows Drive

Castle View High School

Butterfield Crossing Drive

Vicinity Map



SITE DEVELOPMENT PLAN

LOT 3C THE MEADOWS FILING NO.19 PARCEL 2N AMENDMENT NO. 1

THE MEADOWMARK

A PORTION OF SECTION 28, TOWNSHIP 7 SOUTH, RANGE 67 WEST
TOWN OF CASTLE ROCK, COUNTY OF DOUGLAS, STATE OF COLORADO

LEGAL DESCRIPTION:

LOT 3C THE MEADOWS FILING NO.19, PARCEL 2N, AMENDMENT NO. 1.

A PARCEL OF LAND BEING A PORTION OF THAT BARGAIN AND SALE DEED RECORDED UNDER RECEPTION NO. 9754291 OF THE RECORDS OF THE DOUGLAS COUNTY CLERK AND RECORDER'S OFFICE AND LOCATED IN THE NORTHWEST QUARTER OF SECTION 28, TOWNSHIP 7 SOUTH, RANGE 67 WEST OF THE SIXTH PRINCIPAL MERIDIAN, COUNTY OF DOUGLAS, STATE OF COLORADO, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE NORTHWEST CORNER OF SAID SECTION 28 AND CONSIDERING THE WEST LINE OF SAID SECTION 28 TO BEAR SOUTH 00°04'11" WEST, A DISTANCE OF 5,266.05 FEET WITH ALL BEARINGS CONTAINED HEREIN BEING RELATIVE THERE TO;

THENCE SOUTH 56°50'1 2" EAST, A DISTANCE OF 2511.65 FEET TO THE POINT OF BEGINNING;

THENCE NORTH 23°14'28" EAST, A DISTANCE OF 431.16 FEET;

THENCE NORTH 00°11 '47" WEST, A DISTANCE OF 173.99 FEET;

THENCE SOUTH 87°57'06" EAST, A DISTANCE OF 327.91 FEET;

THENCE SOUTH 87°57'22" EAST, A DISTANCE OF 52.53 FEET;

THENCE NORTH 74°38'07" EAST, A DISTANCE OF 28.77 FEET;

THENCE NORTH 88°21'53" EAST, A DISTANCE OF 22.43 FEET;

THENCE SOUTM 23°54'33" WEST, A DISTANCE OF 334.00 FEET;

THENCE SOUTH 66°05'27" EAST, A DISTANCE OF 17.00 FEET;

THEN CE SOUTH 23°54'33" WEST, A DISTANCE OF 191.81 FEET;

THENCE SOUTH 03°19'08" WEST, A DISTANCE OF 20.42 FEET;

THENCE SOUTH 18°30'18" EAST, A DISTANCE OF 110.25 FEET;

THENCE SOUTH 73°29'42" WEST, A DISTANCE OF 25.50 FEET;

THENCE SOUTH 28°29'42" WEST, A DISTANCE OF 28.25 FEET TO THE BEGINNING OF A NON -TANGENT CURVE CONCAVE NORTHERLY HAVING A RADIUS OF 471.00 FEET, THE RADIUS POINT OF SAID CURVE BEARS NORTH 10°56'15" WEST;

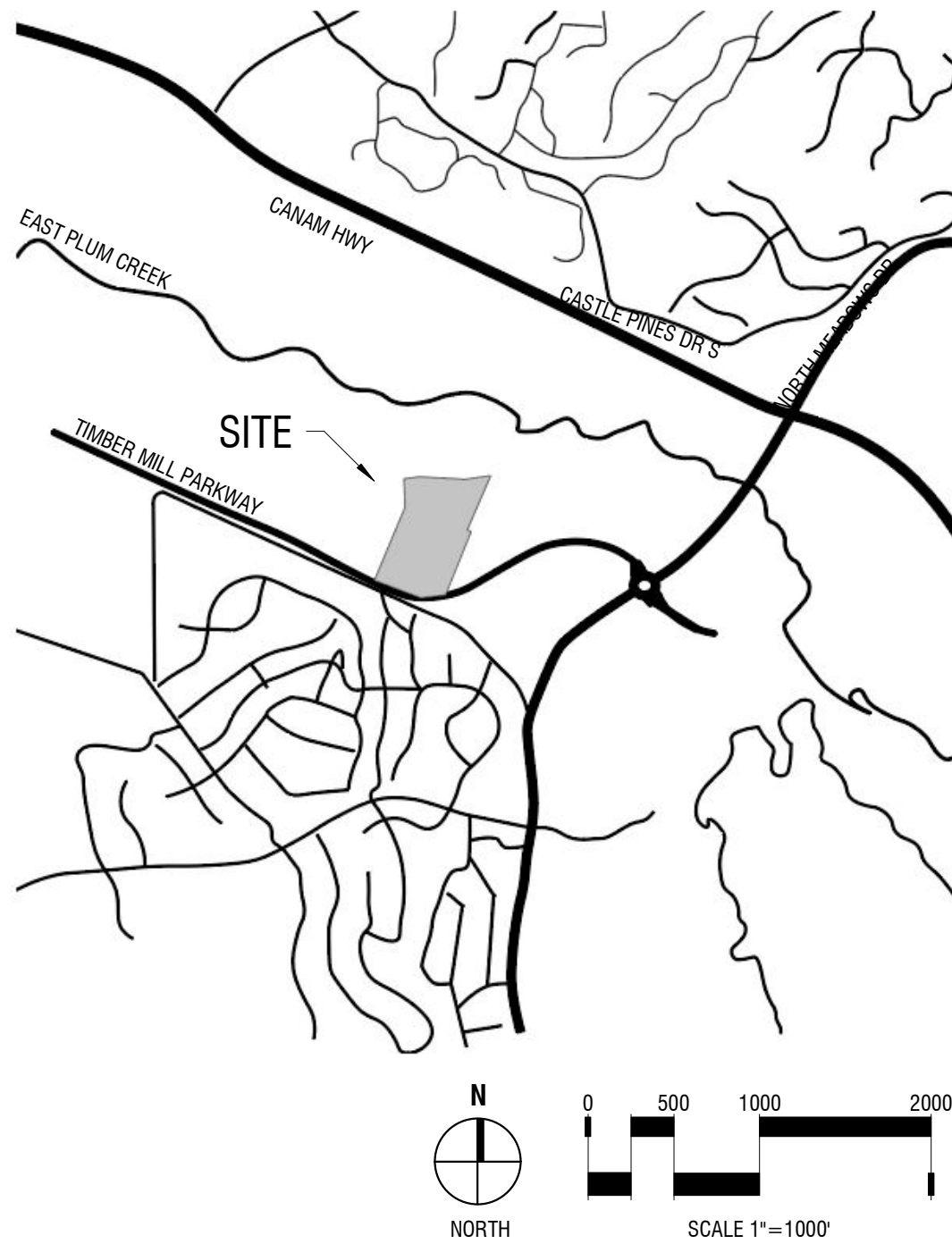
THENCE WESTERLY ALONG SAID CURVE THROUGH A CENTRAL AN ELE OF 34°10'43", AN ARC LENGTH OF 280. 96 FEET;

THENCE NORTH 66°45'32" WEST, A DISTANCE OF 129.87 FEET TO THE POINT OF BEGINNING.

BASIS OF BEARINGS:

BEARINGS SHOWN HEREON ARE GRID BEARIN IS DERIVED FROM GPS OBSERVATION BASED UPON THE COLORADO COORDINATE SYSTEM OF 1983 CENTRAL ZONE (N AD 83, 2011) REFERENCED TO THE WEST LINE OF SECTION 28, TOWNSHIP 7 SOUTH, RANGE 67 WEST, SIXTH PRINCIPAL MERIDIAN BEING MONUMENTED AS SHOWN HEREON, TAKEN TO BEAR SOUTH 00°04'11 " WEST, A DISTANCE OF 23. 5,266.05 FEET.

VICINITY MAP



CERTIFICATES:

OWNERSHIP CERTIFICATION

THE UNDERSIGNED ARE ALL THE OWNERS OF CERTAIN LANDS IN THE TOWN OF CASTLE ROCK, COUNTY OF DOUGLAS AND STATE OF COLORADO DESCRIBED HEREIN.

CASTLE ROCK DEVELOPMENT COMPANY

SIGNED THIS _____ DAY OF _____, 20____.

NOTARY BLOCK

SUBSCRIBED AND SWORN TO BEFORE ME THIS _____ DAY OF _____, 20____,
BY _____, AS _____ OF _____.

WITNESS MY HAND AND OFFICIAL SEAL.

NOTARY PUBLIC
MY COMMISSION EXPIRES: _____.

TITLE CERTIFICATION

I, _____, AN AUTHORIZED REPRESENTATIVE OF _____, A TITLE INSURANCE COMPANY LICENSED TO DO BUSINESS IN THE STATE OF COLORADO, HAVE MADE AN EXAMINATION OF THE PUBLIC RECORDS AND STATE THAT ALL OWNERS, MORTGAGEES AND LIENHOLDERS OF THE PROPERTY ARE LISTED IN THE CERTIFICATE OF OWNERSHIP AND LIENHOLDER SUBORDINATION CERTIFICATE.

AUTHORIZED REPRESENTATIVE
TITLE COMPANY

SIGNED THIS _____ DAY OF _____, 20____.

NOTARY BLOCK

SUBSCRIBED AND SWORN TO BEFORE ME THIS _____ DAY OF _____, 20____,
BY _____, AS AUTHORIZED REPRESENTATIVE OF _____,
WITNESS MY HAND AND OFFICIAL SEAL.

NOTARY PUBLIC
MY COMMISSION EXPIRES: _____.

CIVIL ENGINEER'S STATEMENT

I, _____, BEING A REGISTERED PROFESSIONAL ENGINEER IN THE STATE OF COLORADO, HEREBY ATTEST THAT ALL ROADWAY, GRADING, UTILITY AND DRAINAGE IMPROVEMENTS IDENTIFIED ON THIS SITE DEVELOPMENT PLAN HAVE BEEN DESIGNATED AND ENGINEERED IN CONFORMANCE WITH ALL TOWN OF CASTLE ROCK PUBLIC WORKS CONSTRUCTION STANDARDS.

REGISTERED PROFESSIONAL ENGINEER _____ DATE _____

PLANNING COMMISSION RECOMMENDATION

THIS SITE DEVELOPMENT PLAN WAS RECOMMENDED FOR APPROVAL BY THE PLANNING COMMISSION OF THE TOWN OF CASTLE ROCK, COLORADO ON THE _____ DAY OF _____, 20____.

CHAIR _____ DATE _____

ATTEST:

DIRECTOR OF DEVELOPMENT SERVICES _____ DATE _____

TOWN COUNCIL APPROVAL

THIS SITE DEVELOPMENT PLAN WAS APPROVED BY THE TOWN COUNCIL OF THE TOWN OF CASTLE ROCK, COLORADO, ON THE _____ DAY OF _____, 20____.

MAYOR _____ DATE _____

ATTEST:

TOWN CLERK _____ DATE _____

DOUGLAS COUNTY CLERK AND RECORDER'S CERTIFICATE

THIS SITE DEVELOPMENT PLAN WAS FILED FOR RECORD IN THE OFFICE OF THE COUNTY CLERK AND RECORDER OF DOUGLAS COUNTY AT _____ ON THE _____ DAY OF _____, 20____, AT RECEPTION NO. _____.

BY: _____
DEPUTY

WATER RIGHTS DEDICATION AGREEMENT

THE PROVISION OF MUNICIPAL WATER TO THIS SUBDIVISION IS SUBJECT TO THE TERMS AND CONDITIONS OF THE MEADOWS (FOURTH AMENDMENT DEVELOPMENT AGREEMENT, RECORDED ON THE 10TH DAY OF JULY 2003 AT RECEPTION NO. 2003102970) AND ACCORDINGLY _____ SFE ARE DEBITED FROM THE WATER BANK. (1 - 3" DOMESTIC WATER METER = 16.67 SFE AND 1 - 1" IRRIGATION METER = 1.67 SFE, A TOTAL OF 18.34 SFE)

SURVEYOR'S CERTIFICATE

I, _____, A REGISTERED PROFESSIONAL LAND SURVEYOR IN THE STATE OF COLORADO, DO HEREBY CERTIFY THAT THE SURVEY AND LEGAL DESCRIPTION REPRESENTED BY THIS SITE DEVELOPMENT PLAN WAS MADE UNDER MY SUPERVISION AND THE MONUMENTS SHOWN THEREON ACTUALLY EXIST AND THIS SITE DEVELOPMENT PLAN ACCURATELY REPRESENTS THAT SURVEY.

REGISTERED LAND SURVEYOR _____ DATE _____

FIRE NOTES:

- IF FIRE APPARATUS ACCESS ROADS OR WATER SUPPLY FOR FIRE PROTECTION IS REQUIRED TO BE INSTALLED, SUCH PROTECTION SHALL BE INSTALLED AND MADE SERVICEABLE PRIOR TO VERTICAL CONSTRUCTION.
- FIRE HYDRANT(S) ARE REQUIRED TO BE INSTALLED AND MADE SERVICEABLE PRIOR TO AND DURING THE TIME OF CONSTRUCTION.
- APPROVED FIRE APPARATUS ACCESS ROADS SHALL BE PROVIDED FOR EVERY FACILITY, BUILDING OR PORTION OF A BUILDING CONSTRUCTED OR MOVED INTO, OR WITHIN THE JURISDICTION. THE FIRE APPARATUS ACCESS ROAD SHALL EXTEND TO WITHIN 150 FEET OF ALL PORTIONS OF THE FACILITY AND ALL PORTIONS OF THE EXTERIOR WALLS OF THE FIRST STORY OF THE BUILDING AS MEASURED BY AN APPROVED ROUTE AROUND THE EXTERIOR OF THE BUILDING OR FACILITY.
- DEAD-END FIRE ACCESS ROADS IN EXCESS OF 150 FEET SHALL PROVIDE AN APPROVED AREA FOR TURNING AROUND FIRE APPARATUS.
- FIRE APPARATUS ACCESS ROADS SHALL HAVE AN UNOBSTRUCTED WIDTH OF NOT LESS THAN 20 FEET, EXCLUSIVE OF SHOULDERS, EXCEPT FOR APPROVED SECURITY GATES AND AN UNOBSTRUCTED VERTICAL CLEARANCE OF NOT LESS THAN 13 FEET, 6 INCHES.
- FIRE APPARATUS ACCESS ROADS SHALL BE DESIGNED AND MAINTAINED TO SUPPORT THE IMPOSED LOADS OF FIRE APPARATUS WEIGHING AT LEAST 75,000 POUNDS, AND SHALL BE SURFACED SO AS TO PROVIDE ALL-WEATHER DRIVING CAPABILITIES. THE TERM "ALL-WEATHER DRIVING CAPABILITIES" HAS BEEN INTERPRETED TO MEAN EITHER CONCRETE OR ASPHALT, OR OTHER APPROVED DRIVING SURFACE DESIGNED BY AN ENGINEER AND APPROVED BY THE FIRE DEPARTMENT.
- "NO PARKING FIRE LANE" SIGNS ARE REQUIRED IN AREAS THAT MEET THE FOLLOWING CRITERIA AND IN AREAS DESIGNATED BY THE FIRE PREVENTION BUREAU. SIGNS SHALL BE POSTED ON BOTH SIDES OF FIRE ACCESS ROADWAYS, PUBLIC OR PRIVATE ROADWAYS AND DRIVEWAYS LESS THAN 26 FEET WIDE. SIGNS SHALL BE POSTED ON ONE SIDE ONLY OF FIRE ACCESS ROADWAYS, PUBLIC OR PRIVATE ROADWAYS OR DRIVEWAYS BETWEEN 26 FEET WIDE AND 32 FEET WIDE. NO SIGNAGE IS REQUIRED FOR FIRE ACCESS ROADWAYS, PUBLIC OR PRIVATE ROADWAYS OR DRIVEWAYS GREATER THAN OR EQUAL TO 32 FEET WIDE.
- IT IS THE RESPONSIBILITY OF THE PROPERTY OWNER TO MAINTAIN DRIVE LANES FOR EMERGENCY VEHICLE INGRESS AND EGRESS, INCLUDING SNOW REMOVAL.
- THE DEVELOPER UNDERSTANDS THAT AS THE PROJECT DEVELOPS THERE MAY BE FIRE AND LIFE SAFETY PROVISIONS OF THE TOWN OF CASTLE ROCK ADOPTED INTERNATIONAL FIRE CODE (IFC) THAT MAY ARISE, AND WERE NOT CLEARLY VISIBLE DURING THE INITIAL REVIEWS, BUT MAY REQUIRE CORRECTIVE ACTION. THESE ITEMS MAY INCLUDE, BUT ARE NOT LIMITED TO: FIRE FLOW REQUIREMENTS, FIRE HYDRANT PLACEMENT, ACCESS, ETC.

SHEET INDEX

1	COVER SHEET
2	SITE PLAN
3	GRADING PLAN
4	UTILITY PLAN
5	LANDSCAPE NOTES & SCHEDULE
6	OVERALL LANDSCAPE PLAN
7	LANDSCAPE PLAN
8	LANDSCAPE PLAN
9	LANDSCAPE DETAILS
10	IRRIGATION PLAN
11	IRRIGATION PLAN
12	BUILDING ELEVATIONS
13	BUILDING ELEVATIONS
14	SITE PHOTOMETRIC
15	SITE LIGHTING DETAILS
16	SITE LIGHTING DETAILS
17	BUILDING HORIZONTAL DIMENSIONS

LIST OF CONTACTS:

OWNER:
CASTLE ROCK DEVELOPMENT COMPANY
3033 E 1ST AVE #410
DENVER, CO 80206

DEVELOPER:
ULYSSES DEVELOPMENT GROUP
210 UNIVERSITY BLVD
DENVER, CO 80206

ARCHITECT:
SHOPWORKS ARCHITECTURE
301 W 35TH AVE
DENVER, CO 80216

CIVIL ENGINEER/SURVEYOR:
WARE WALCOMB
900 S BROADWAY #320
DENVER, CO 80209

LANDSCAPE ARCHITECT:
FLOW DESIGN COLLABORATIVE
301 W 35TH AVE
DENVER, CO 80216

ELECTRICAL ENGINEER:
MV CONSULTING
4640 PECOS ST, UNIT F
DENVER, CO 80211

GENERAL NOTES:

- THE TOWN OF CASTLE ROCK REQUIRES THAT MAINTENANCE ACCESS BE PROVIDED TO ALL STORM DRAINAGE FACILITIES TO ASSURE CONTINUOUS OPERATIONAL CAPABILITY OF THE SYSTEM. THE PROPERTY OWNER, SUBSEQUENT OWNERS, HEIRS, SUCCESSORS AND ASSIGNS SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF ALL DRAINAGE FACILITIES INCLUDING, BUT NOT LIMITED TO: INLETS, PIPES, CULVERTS, CHANNELS, DITCHES, HYDRAULIC STRUCTURES, AND DETENTION BASINS LOCATED ON THIS PROPERTY, UNLESS MODIFIED BY THE SUBDIVISION IMPROVEMENTS AGREEMENT. SHOULD THE OWNER FAIL TO ADEQUATELY MAINTAIN SAID FACILITIES, THE TOWN SHALL HAVE THE RIGHT TO ENTER SAID PROPERTY FOR THE PURPOSES OF OPERATION AND MAINTENANCE. ALL SUCH MAINTENANCE COSTS WILL BE ASSESSED TO THE PROPERTY OWNER, SUBSEQUENT OWNERS, HEIRS, SUCCESSORS AND ASSIGNS. THE MAINTENANCE COSTS SHALL INCLUDE ALL ACTUAL COSTS FOR LABOR, EQUIPMENT AND MATERIALS AND A 25% FEE.
- PURSUANT TO SECTION 4.7 AND 9.3.2 PER THE 2021 TOWN OF CASTLE ROCK LANDSCAPE REGULATIONS THE PROPERTY OWNER, SUBSEQUENT OWNERS, HEIRS, SUCCESSORS AND ASSIGNS SHALL BE RESPONSIBLE FOR THE PROPER MAINTENANCE OF THE AREA SUBJECT TO THE APPROVED SITE DEVELOPMENT PLAN. LANDSCAPING WITHIN PUBLIC RIGHTS-OF-WAY IS TO BE MAINTAINED BY THE ADJACENT PRIVATE PROPERTY OWNER OR THE HOMEOWNER/PROPERTY OWNER ASSOCIATION, AS APPLICABLE. LANDSCAPING SHALL BE CONTINUOUSLY MAINTAINED INCLUDING NECESSARY WATERING, WEEDING, PRUNING, MOWING, PEST CONTROL, AND REPLACEMENT OF DEAD OR DISEASED PLANT MATERIAL. UPON WRITTEN NOTICE BY THE TOWN, THE OWNER WILL HAVE 45 DAYS TO CURE OR REPLACE DAMAGED OR DEAD LANDSCAPE MATERIAL. IN THE CASE OF DISEASED LANDSCAPE MATERIAL, A SHORTER COMPLIANCE PERIOD MAY BE SPECIFIED IN SAID NOTICE. THE TOWN OF CASTLE ROCK WATER CONSERVATION ORDINANCE REGULATES TIMES OF SEASONAL IRRIGATION AND PROHIBITS THE WASTING OF POTABLE WATER THROUGH IMPROPER IRRIGATION.
- THE PROVIDED LANDSCAPE COUNTS IN THE SITE DEVELOPMENT PLAN ARE MINIMUM REQUIRED COUNTS. ANY CHANGES TO THE PROVIDED LANDSCAPE COUNTS SHALL REQUIRE AN SDP AMENDMENT. THE LOCATION OF PLANT MATERIAL IS SUBJECT TO CHANGE DUE TO FIELD CONDITIONS WITH REVIEW OF THE CONSTRUCTION DOCUMENTS.
- THE SURVEYED PROPERTY SHOWN HEREIN LIES WITHIN OTHER AREAS: ZONE X, AREAS DETERMINED TO BE OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOODPLAIN, AS SHOWN ON FEDERAL EMERGENCY MANAGEMENT AGENCY FLOOD INSURANCE RATE MAP INDEX. NO. 08035C0167G, MAP REVISED MARCH 16, 2016.
- ANY STREET SIGNS, STRIPING, STREET LIGHTS AND CURB RAMPS ARE CONCEPTUAL ONLY AND SUBJECT TO TOWN REVIEW WITH THE CONSTRUCTION DOCUMENTS. THESE ITEMS SHALL COMPLY WITH THE TOWN OF CASTLE ROCK'S REGULATIONS, STANDARDS AND REQUIREMENTS.
- THE DEVELOPER SHALL CONFORM TO THE TOWN OF CASTLE ROCK "WATER USE MANAGEMENT PROGRAM IMPLEMENTATION POLICY", AS AMENDED FROM TIME TO TIME, FOR THIS PROJECT.
- APPROVAL OF THIS SITE DEVELOPMENT PLAN DOES NOT CONSTITUTE APPROVAL OF ANY DEVIATIONS FROM TOWN OF CASTLE ROCK REGULATIONS AND STANDARDS. ALL DEVIATIONS FROM TOWN REGULATIONS AND STANDARDS ARE SUBJECT TO THE APPROPRIATE PROCEDURES FOR APPROVAL.
- NO SOLID OBJECT (EXCLUDING FIRE HYDRANTS, TRAFFIC CONTROL DEVICES AND TRAFFIC SIGNS) EXCEEDING THIRTY (30) INCHES IN HEIGHT ABOVE THE FLOWLINE ELEVATIONS OF THE ADJACENT STREET, INCLUDING BUT NOT LIMITED TO BUILDINGS, UTILITY CABINETS, WALLS, FENCES, LANDSCAPE PLANTINGS, CROPS, CUT SLOPES, AND BERMS SHALL BE PLACED WITHIN SIGHT DISTANCE LINES AND SIGHT DISTANCE EASEMENTS.
- THE PURPOSE AND USE OF ALL TRACTS, TO WHOM THE TRACTS WILL BE DEDICATED WITH THE PLAT WILL BE MAINTAINED BY THE MEADOWS METROPOLITAN DISTRICT.
- ALL UTILITY, DRAINAGE, EMERGENCY ACCESS, SIGHT DISTANCE AND PUBLIC ACCESS/TRAIL EASEMENTS AS SHOWN ON THE SITE DEVELOPMENT PLAN SHALL BE GRANTED TO THE TOWN OF CASTLE ROCK WITH THE PLAT.
- THIS SITE IS ZONED THE MEADOWS PD FOURTH AMENDMENT.
- ALL EMERGENCY ACCESS ROADS, EMERGENCY ACCESS GATES AND SIGNAGE SHALL COMPLY WITH THE TOWN OF CASTLE ROCK FIRE DEPARTMENT REQUIREMENTS AND SHALL BE MAINTAINED BY THE MEADOWS METROPOLITAN DISTRICT.
- UNLESS OTHERWISE NOTED, ALL LOTS SHALL HAVE A 10-FOOT UTILITY EASEMENT ALONG THE FRONT AND REAR LOT LINES AND ALONG ALL PUBLIC RIGHTS-OF-WAY AND SHALL HAVE 5-FOOT UTILITY EASEMENTS ALONG EACH SIDE LOT LINE. THESE UTILITY EASEMENTS ARE FOR THE INSTALLATION, MAINTENANCE AND OPERATION OF UTILITIES AND DRAINAGE FACILITIES INCLUDING, BUT NOT LIMITED TO STREET LIGHTS, ELECTRIC LINES, GAS LINES, CABLE TELEVISION LINES, FIBER OPTIC LINES AND TELEPHONE LINES, AS WELL AS PERPETUAL RIGHT FOR INGRESS AND EGRESS FOR INSTALLATION, MAINTENANCE AND REPLACEMENT OF SUCH LINES.
- RETAINING WALLS, SECTIONS OF RETAINING WALLS GREATER THAN 4-FEET IN HEIGHT AS MEASURED FROM THE BOTTOM OF THE FOOTING TO THE TOP OF THE WALL, AND RETAINING WALLS, REGARDLESS OF HEIGHT, WHICH RETAIN A SURCHARGE OR TIERED WALLS MUST BE DESIGNED BY A STRUCTURAL ENGINEER LICENSED IN THE STATE OF COLORADO AND MUST RECEIVE A BUILDING PERMIT FROM THE TOWN OF CASTLE ROCK.
- A SIGN PERMIT FOR EACH SIGN MUST BE OBTAINED FROM THE TOWN OF CASTLE ROCK BUILDING DIVISION PRIOR TO PLACING ANY SIGN ON THE PROPERTY. ALL SIGNS MUST COMPLY WITH THE PROVISIONS OF TITLE 19 (SIGN CODE REGULATIONS) OF THE MUNICIPAL CODE.
- THE NUMBER OF PARKING SPACES HAS BEEN SET BASED ON THE PROPOSED USES ON THIS SITE DEVELOPMENT PLAN AND CHAPTER 17.54 OF THE CASTLE ROCK MUNICIPAL CODE. A CHANGE OF USE TO A MORE PARKING INTENSIVE USE AS IDENTIFIED IN CHAPTER 17.54 OF THE CASTLE ROCK MUNICIPAL CODE WILL REQUIRE AN AMENDMENT TO THIS SITE DEVELOPMENT PLAN.

PREPARED FOR:

CASTLE VIEW
OWNER LLC

LANDSCAPE
CERTIFICATION:

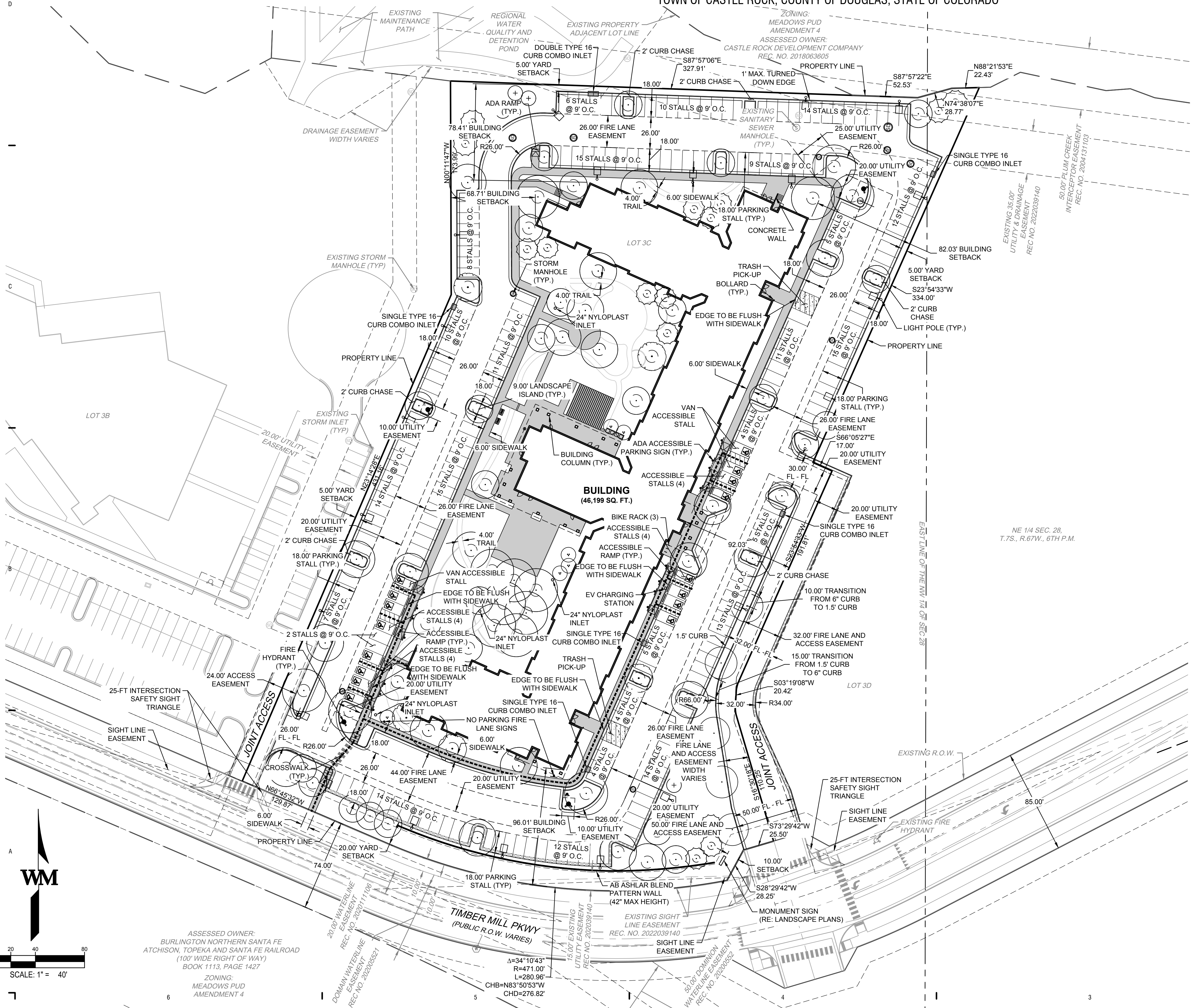
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SDP_02	08/24/2022
SDP_03	10/28/2022
SDP_04	12/12/2022
SDP_05	12/29/2022

SHEET TITLE:
COVER SHEET

SITE DEVELOPMENT PLAN
LOT 3C THE MEADOWS FILING NO.19 PARCEL 2N AMENDMENT NO. 1
THE MEADOWMARK

A PORTION OF SECTION 28, TOWNSHIP 7 SOUTH, RANGE 67 WEST
TOWN OF CASTLE ROCK, COUNTY OF DOUGLAS, STATE OF COLORADO



LEGEND:

- PROPERTY LINE
- EXISTING CURB AND GUTTER
- PROPOSED CATCH CURB AND GUTTER
- PROPOSED SPILLCURB
- PROPOSED HANDICAP PARKING
- PROPOSED FIRE LANE AND DRAINAGE EASEMENT
- EXISTING UTILITY EASEMENT
- ICC/A117.1 ACCESSIBLE ROUTE
- PROPOSED FIRE HYDRANT
- EXISTING FIRE HYDRANT
- FDC W/ KNOX HARDWARE
- KNOX BOX W/ APPROVED HARDWARE
- PROPOSED WATER METER
- PROPOSED SIGN
- PROPOSED SIDEWALK
- 6" PCC PER GEOTECH REPORT
- 5" FULL DEPTH ASPHALT PER GEOTECH REPORT
- PARKING COUNT
- PROPOSED LIGHTS (POLES & BUILDING)
- EXISTING LIGHT POLE
- SIGHT TRIANGLE

NOTES

- ALL DIMENSIONS ARE TO FLOWLINE AND BUILDING FACE UNLESS OTHERWISE NOTED.
- ALL ACCESSIBLE RAMPS SHALL BE CONSTRUCTED WITH DETECTIBLE WARNING PADS.
- ALL ENTRANCES ARE PRIVATE UNLESS OTHERWISE NOTED.

FIRE LANE, STOP, VAN ACCESSIBLE PARKING & HANDICAP SIGNS
N.T.S.

FIRE LANE SIGN
N.T.S.

ICC/ANSI PARKING SIGN
ONE PER SPACE
N.T.S.

HANDICAP PARKING SIGN (TYP.)

ADA PARKING DETAILS
N.T.S.

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p 303.561.3333 wwaremalcomb.com

PREPARED FOR:

CASTLE VIEW
OWNER, LLC

LANDSCAPE
CERTIFICATION:

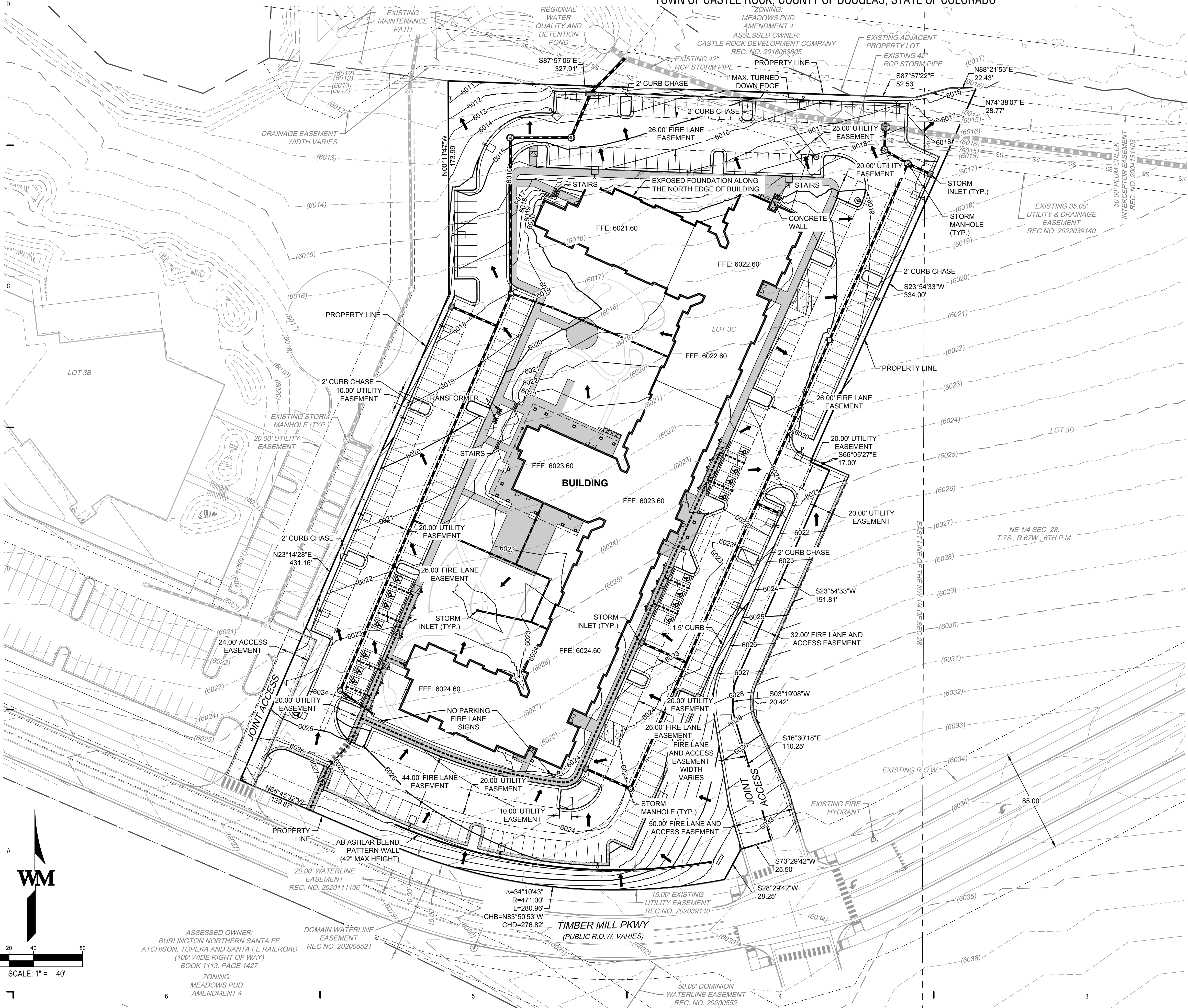
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SDP_05	12/29/2022

SHEET TITLE:
SITE PLAN

SITE DEVELOPMENT PLAN
LOT 3C THE MEADOWS FILING NO.19 PARCEL 2N AMENDMENT NO. 1
THE MEADOWMARK

A PORTION OF SECTION 28, TOWNSHIP 7 SOUTH, RANGE 67 WEST
TOWN OF CASTLE ROCK, COUNTY OF DOUGLAS, STATE OF COLORADO



LEGEND:

	PROPERTY LINE
	EXISTING CURB & GUTTER
	PROPOSED SPILL CURB
	PROPOSED CURB
	PROPOSED 5' CONTOUR
	PROPOSED 1' CONTOUR
	EXISTING 5' CONTOUR
	EXISTING 1' CONTOUR
	PROPOSED STORM LINE
	EXISTING STORM LINE
	PROPOSED STORM INLET
	EXISTING STORM INLET
	PROPOSED SWALE
	PROPOSED SLOPE AND DIRECTION
	PROPOSED FENCE
	FLOW DIRECTION
	HIGH POINT
	LOW POINT
	MATCH EXISTING
	GRADE BREAK
	GRADE AT TOP OF WALL
	GRADE AT BOTTOM OF WALL
	TOP BACK OF CURB

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PREPARED FOR:

CASTLE VIEW
OWNER, LLC

LANDSCAPE
CERTIFICATION:

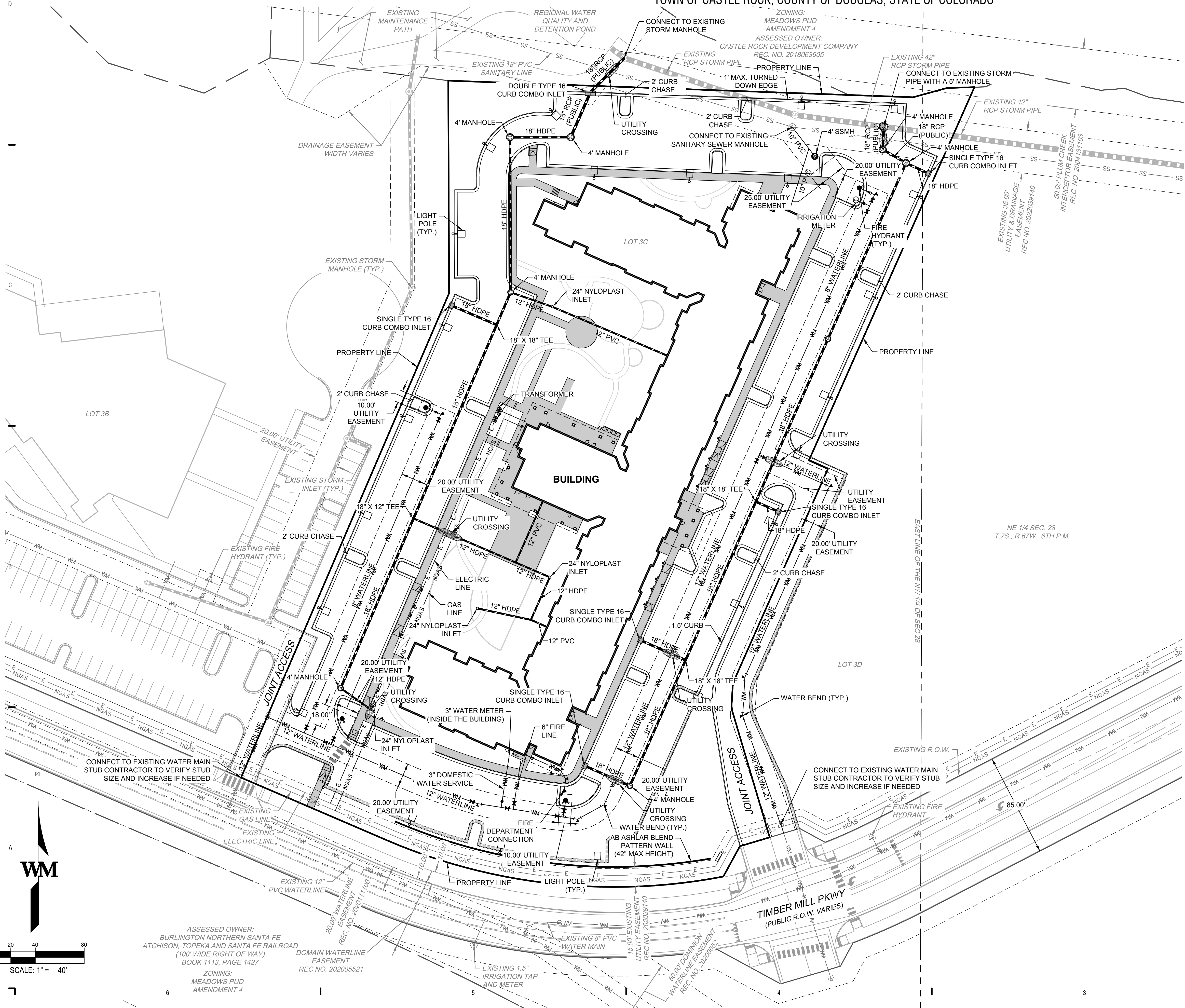
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SDP_04	12/12/2022
SDP_05	12/29/2022

SHEET TITLE:
GRADING PLAN

SITE DEVELOPMENT PLAN
LOT 3C THE MEADOWS FILING NO.19 PARCEL 2N AMENDMENT NO. 1
THE MEADOWMARK

A PORTION OF SECTION 28, TOWNSHIP 7 SOUTH, RANGE 67 WEST
TOWN OF CASTLE ROCK, COUNTY OF DOUGLAS, STATE OF COLORADO



LEGEND:

- PROPERTY LINE
- UTILITY CROSSING
- PROPOSED STORM LINE
- EXISTING STORM LINE
- PROPOSED STORM INLET
- EXISTING STORM INLET
- PROPOSED SWALE
- PROPOSED SANITARY SEWER W/ MANHOLE
- EXISTING SANITARY SEWER W/ MANHOLE
- PROPOSED WATERLINE & VALVE
- PROPOSED FIRE HYDRANT ASSEMBLY
- PROPOSED WATER METER
- EXISTING WATERLINE & VALVE
- EXISTING FIRE HYDRANT
- EXISTING ELECTRIC LINE
- EXISTING LIGHT POLE
- PROPOSED LIGHT POLE
- PROPOSED PLUG
- PROPOSED FENCE

UTILITY NOTE:

FIRE FLOW DATA:

FIRE FLOW REQUIREMENTS ARE 3,750 GPM MIN @ 20 PSI RESIDUAL PRESSURE

THIS BUILDING REQUIRES 4 FIRE HYDRANTS TO MEET FIRE-FLOW REQUIREMENTS

EACH FIRE HYDRANT MUST SUPPLY 1500 GPM MINIMUM @ 20 PSI RESIDUAL PRESSURE

CODE USED FOR ANALYSIS: 2018 IFC
OCCUPANCY GROUP: R-2
CONSTRUCTION TYPE: VA (COMMERCIAL)
FIRE FLOW CALCULATION AREA: 176,400 ± SF
THIS BUILDING FULLY SPRINKLERED

NOTES

- ALL STORM SEWER PIPES AND STRUCTURES ARE PRIVATE UNLESS OTHERWISE NOTED AND WILL BE MAINTAINED BY OWNER/DEVELOPER.
- ALL SANITARY PIPES AND STRUCTURES ARE PRIVATE UNLESS OTHERWISE NOTED.
- ALL PROPOSED EASEMENTS MUST BE RECORDED PRIOR TO ISSUANCE OF CONSTRUCTION PERMITS.
- THE MINIMUM SEPARATION BETWEEN WATERLINES AND SANITARY SEWER LINES IS 10 FEET.
- THE MINIMUM SEPARATION BETWEEN WATER SERVICE LINES IS 5 FEET.
- THIS SITE IS LOCATED WITHIN THE TOWN OF CASTLE ROCK ORANGE WATER PLANNING PRESSURE ZONE.

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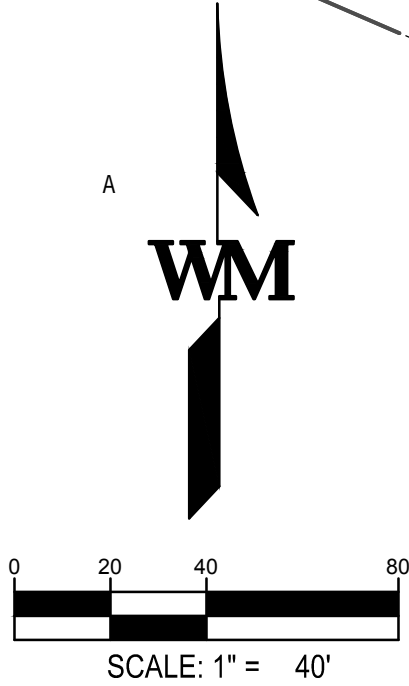
CASTLE VIEW
OWNER, LLC

LANDSCAPE
CERTIFICATION:

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SDP_04	12/12/2022
SDP_05	12/29/2022

SHEET TITLE:
UTILITY PLAN



SITE DEVELOPMENT PLAN
LOT 3C THE MEADOWS FILING NO.19 PARCEL 2N AMENDMENT NO. 1
THE MEADOWMARK

A PORTION OF SECTION 28, TOWNSHIP 7 SOUTH, RANGE 67 WEST
TOWN OF CASTLE ROCK, COUNTY OF DOUGLAS, STATE OF COLORADO

LANDSCAPE NOTES:

- 1. FINAL LANDSCAPE AREA, COVERAGE, AND PLANT QUALITIES SHALL CONFORM TO SUBSEQUENT SUBMITTAL REQUIREMENTS.
- 2. LOCATION OF PLANT MATERIALS ARE APPROXIMATED AND MAY CHANGE SLIGHTLY DUE TO UNFORESEEN FIELD CONSTRAINTS.
- 3. ALL PLANTS ARE TO BE PROPERLY HYDROZONED PER TOWN OF CASTLE ROCK PLANT LIST.
- 4. DISTANCE OF TREES TO WET UTILITY LINES SHOULD BE A MINIMUM OF 10 FEET.
- 5. PERMANENT IRRIGATION IS REQUIRED FOR ALL LANDSCAPED AREAS GREATER THAN 500 SQUARE FEET, PER SECTION 4.2.3 OF THE LANDSCAPE AND IRRIGATION MANUAL.
- 6. DESIGN MUST ACCOMMODATE THE WATERING RESTRICTIONS AS OUTLINED IN THE TOWN OF CASTLE ROCK WATER USE MANAGEMENT PLAN (WUMP).
- 7. IRRIGATION SYSTEMS ARE TO BE DESIGNED TO OPERATE WITHIN THE TOWN OF CASTLE ROCK WATER USE MANAGEMENT PLAN.
- 8. IRRIGATION SYSTEMS ARE TO BE DESIGNED PER THE TOWN OF CASTLE ROCK LANDSCAPE AND IRRIGATION REGULATIONS SECTION 4.2.3 AND TO CORRELATE WITH THE USE TYPE ON THE PROPERTY.
- 9. IF ANY TRANSFORMERS, GROUND-MOUNTED HVAC UNITS, UTILITY PEDESTALS, OR SIMILAR FEATURES EXISTING ON SITE, BUT NOT SHOWN ON THE SITE DEVELOPMENT PLAN, ADDITIONAL LANDSCAPING AND SCREENING MAY BE REQUIRED BASED UPON FIELD CONDITIONS DETERMINED DURING THE SITE INSPECTION. INSTALLATION WILL BE REQUIRED PRIOR TO THE FINAL INSPECTION AND THE ISSUANCE OF THE CERTIFICATE OF OCCUPANCY, AS APPLICABLE.
- 10. NO SOLID OBJECT EXCEEDING 30" IN HEIGHT ABOVE THE FLOWLINE ELEVATION OF THE ADJACENT STREET, INCLUDING, BUT NOT LIMITED TO BUILDING, UTILITY CABINETS, WALLS, FENCES, TREES, LANDSCAPE PLANTINGS, CUT SLOPES AND BERMS SHALL BE PLACED IN SIGHT DISTANCE TRIANGLES OR EASEMENTS AS SHOWN ON THE PLAN.
- 11. NO TREES, LARGE SHRUBS, OR PERMANENT STRUCTURES ARE ALLOWED IN WET UTILITY AND DRAINAGE EASEMENTS.
- 12. AN IRRIGATION PLAN IS REQUIRED WITH THE FIRST SUBMITTAL OF THE CONSTRUCTION DOCUMENTS. PLEASE SEE SECTIONS 3.1.2B AND 4.2.3 OF THE TOWN OF CASTLE ROCK LANDSCAPE AND IRRIGATION PERFORMANCE STANDARDS AND CRITERIA MANUAL FOR IRRIGATION SUBMITTAL AND DESIGN REQUIREMENTS. CHANGES TO THE LANDSCAPE PLAN MAY BE NECESSARY DUE TO CONSTRUCTION DOCUMENTS IRRIGATION PLAN REVIEW COMMENTS.
- 13. LANDSCAPE AND IRRIGATION SHALL BE INSTALLED BY A TOWN OF CASTLE ROCK REGISTERED LANDSCAPE CONTRACT PROFESSIONAL.
- 14. DEAD PLANT MATERIALS SHALL BE REMOVED AND REPLACED WITH HEALTHY PLANTING MATERIALS OF COMPARABLE SIZE AND SPECIES THAT MEET THE ORIGINAL INTENT OF THE APPROVED LANDSCAPE DESIGN WITHIN FORTY-FIVE(45) DAYS OR SOONER IN THE EVENT OF A CONTAGIOUS DISEASE OR INVASIVE INSECT SPECIES. TOWN OF CASTLE ROCK IS NOT RESPONSIBLE FOR PLANT REPLACEMENTS.
- 15. SLOPES STEEPER THAN 3:1 ARE NOT PERMITTED ON LANDSCAPE PLANS IN THE TOWN OF CASTLE ROCK

MULTIFAMILY LANDSCAPE SITE INVENTORY

GROSS SITE AREA	REQUIRED LANDSCAPE AREA (238,522 X .20)	TURF GRASS SF	REQUIRED TREES (47,704/1000SF) x2	PROPOSED TREES	REQUIRED SHRUBS (47,704/1000SF) x4	PROVIDED SHRUBS	SOIL PREP AMOUNTS CUBIC FEET (LANDSCAPE AREA PROVIDED)	SEPARATE IRRIGATION SERVICE CONNECTIONS
238,522 SF	REQUIRED: 47,704 SF PROVIDED: 67,885 SF	TALL FESCUE MIX 2,361 SF	96	107	192	378	67,885	YES
PARKING LOT AREA	PARKING LOT LANDSCAPE AREA (10% OF 92,148)	NUMBER OF PARKING SPACES	NUMBER OF INTERIOR ISLANDS	MIN WIDTH OF INTERIOR ISLANDS	TREES REQUIRED (# OF ISLANDS)	TREES PROVIDED	SHRUBS REQUIRED (# OF ISLANDS) x4	SHRUBS PROVIDED
92,148 SF	REQUIRED: 9,215 SF PROVIDED: 9,865 SF	255	24	8FT	24	27	96	106

LANDSCAPE REQUIREMENTS CHART

AREA	TOTAL AREA IN SF	REQUIRED LANDSCAPE AREA	REQUIRED TREES	PROPOSED TREES	REQUIRED SHRUBS	PROPOSED SHRUBS
GROSS SITE	238,522 SF	20% = 47,704 SF	(47,704/1000SF) x2 = 96	107	(47,704/1000SF) X 4 = 192	378
PARKING	92,148 SF	10% = 9,215 SF	(# OF ISLANDS) = 24	27	(# OF ISLANDS) X 4 = 96	106
ROW LANDSCAPE	426 LF	NA	426LF/40 = 11	0*	(426LF/40) X 4 = 44	44

*REFER TO VARIENCE TCV22-0119. DUE TO SIGHT TRIANGLES NO TREES ARE PROPOSED WITHIN THE ROW. DUE TO UTILITY EASEMENT ON BACK OF WALK, NO TREES ARE PROPOSED AT BACK OF WALK. OVERALL LANDSCAPE TREE NUMBER EXCEEDS REQUIREMENT BY 11 TO ACCOMMODATE STREET TREES. OVER 75% OF CANOPY TREES ARE LARGE DECIDUOUS TREES LANDSCAPE WITHIN ROW IS TO BE LOW/VERY LOW HYDROZONE

CLWUR Chart for the Town of Castle Rock

Irrig. Zone	Landscape Area (Common)	App Rate (inches/month)	Zone (VL,L,Mod,HW)	% of Total Area	IA (Irrigated area in sq ft for each zone)	LWUR (Landscape Water Use Rating)	TA (Total Area of all irrigated landscape Zones)	CLWUR (LWUR x IA/TA)
4	TURF AREA		HW	0.03	2361	4	67,885	0.14
3	TREES/SHRUBS/GROUND COVER		MOD	0.27	18240	3	67,885	0.81
2	OR IRRIGATED NATIVE SEED		L	0.37	25001	2	67,885	0.74
1	NATIVE SEED		VL	0.33	22,283	1	67,885	0.33
Total of the CLWUR=								2.01



PREPARED FOR:

CASTLE VIEW OWNER, LLC

LANDSCAPE CERTIFICATION:

CHRISTOPHER CHARLES HOY
LICENSE NUMBER 476
STATE OF COLORADO
LICENSED LANDSCAPE ARCHITECT

DATE:

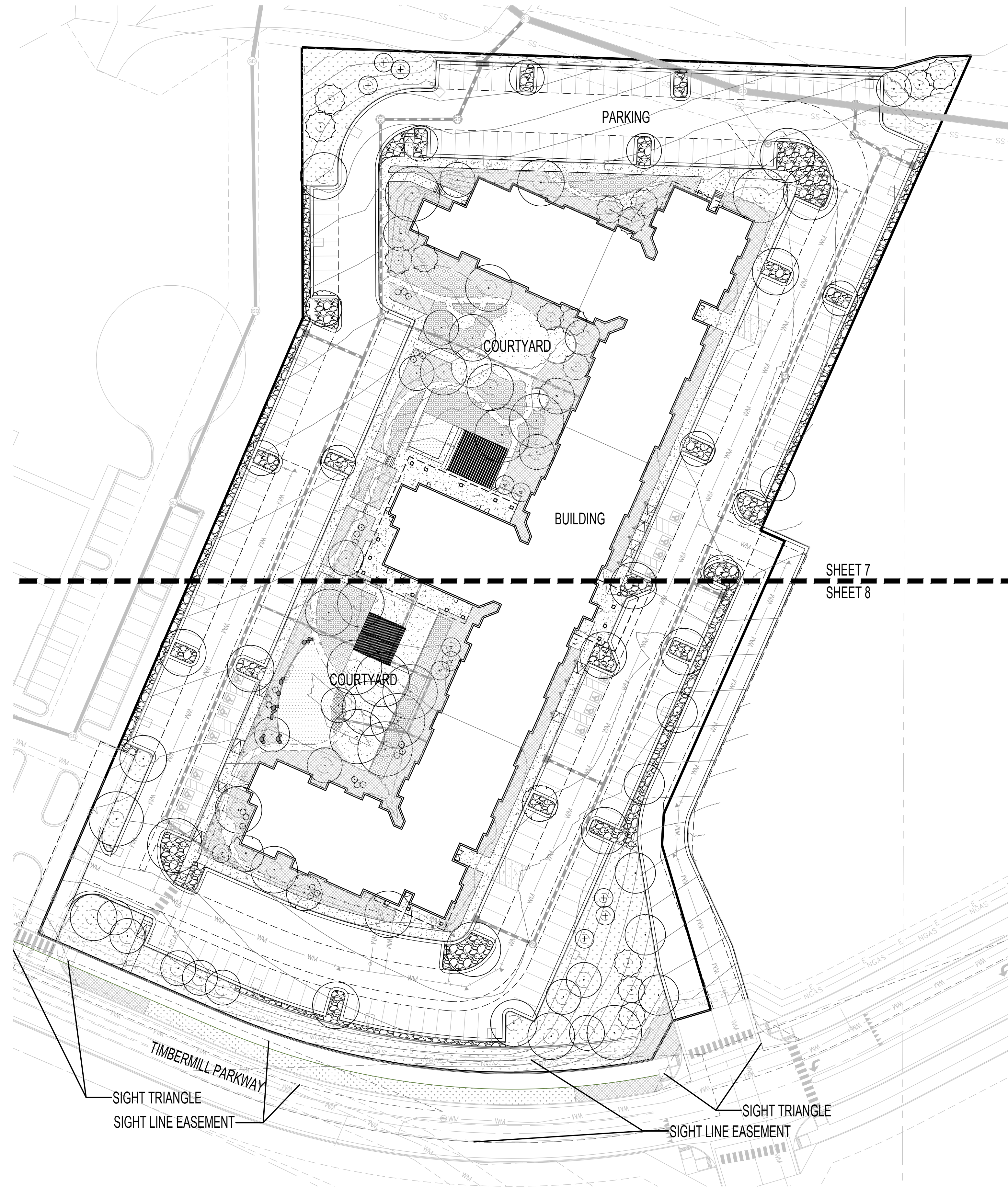
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SDP_02	08/22/2022
SDP_03	10/28/2022
SDP_04	12/12/2022
SDP_05	12/29/2022

SHEET TITLE:

LANDSCAPE NOTES & SCHEDULE

SITE DEVELOPMENT PLAN
LOT 3C THE MEADOWS FILING NO.19 PARCEL 2N AMENDMENT NO. 1
THE MEADOWMARK

A PORTION OF SECTION 28, TOWNSHIP 7 SOUTH, RANGE 67 WEST
TOWN OF CASTLE ROCK, COUNTY OF DOUGLAS, STATE OF COLORADO



PREPARED FOR:

CASTLE VIEW
OWNER, LLC

LANDSCAPE
CERTIFICATION:

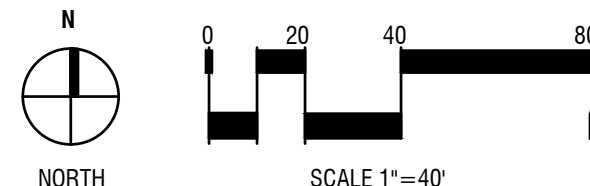
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SHEET TITLE:

OVERALL
LANDSCAPE PLAN



LOT 2N D2A, THE MEADOWS FILING NO. 19
SITE DEVELOPMENT PLAN

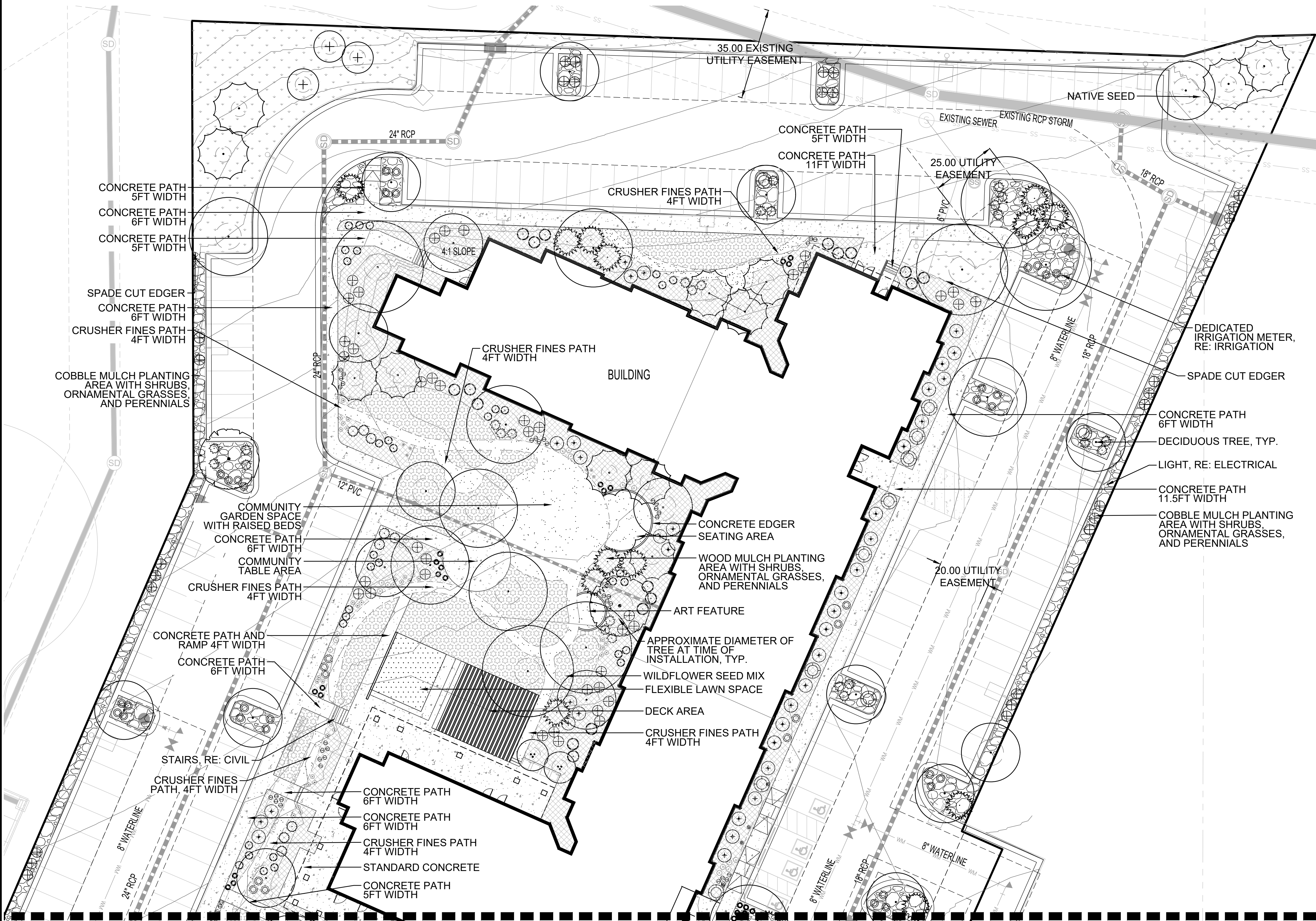
TOWN OF CASTLE ROCK PROJECT NO. SPD 22-0032

SITE DEVELOPMENT PLAN

LOT 3C THE MEADOWS FILING NO.19 PARCEL 2N AMENDMENT NO. 1

THE MEADOWMARK

A PORTION OF SECTION 28, TOWNSHIP 7 SOUTH, RANGE 67 WEST
 TOWN OF CASTLE ROCK, COUNTY OF DOUGLAS, STATE OF COLORADO



LEGEND

- CONCRETE PAVING
- CRUSHER FINES
- NATIVE SEED
- LOW GROW NATIVE SEED
- WILDFLOWER SEED
- COBBLE MULCH WITH SHRUBS
GRASSES/PERENNIALS
- CEDAR MULCH WITH
SHRUBS/GRASSES/
PERENNIALS
- SOD
- SPADE CUT EDGER
- STEEL EDGER
- SPADE CUT EDGER
- LARGE CANOPY
DECIDUOUS TREE
- SMALL DECIDUOUS TREE
- EVERGREEN TREE
- DECIDUOUS SHRUB
- EVERGREEN SHRUB
- ORNAMENTAL GRASS
- PERENNIAL

PREPARED FOR:

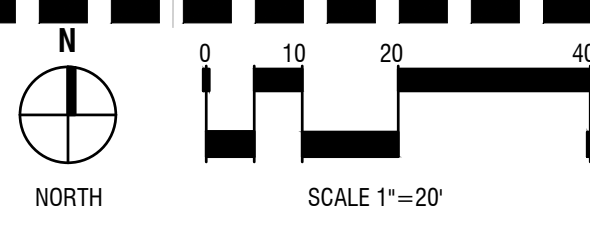
 CASTLE VIEW
OWNER, LLC

LANDSCAPE
CERTIFICATION:
 CHRISTOPHER CHARLES HOY
 LICENSE NUMBER
 476
 STATE OF COLORADO
 LICENSED LANDSCAPE ARCHITECT

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SHEET TITLE:
 LANDSCAPE PLAN

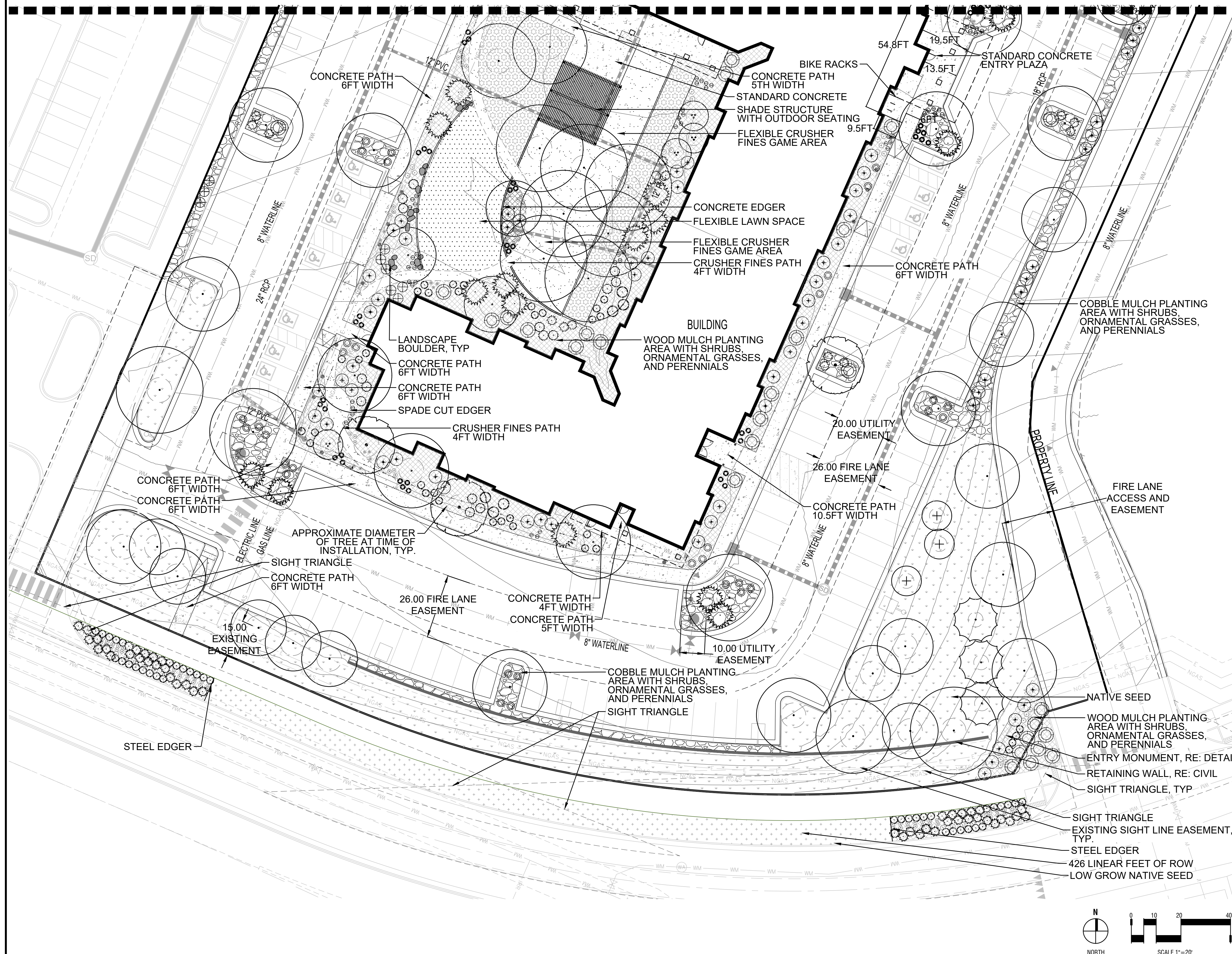


A PORTION OF SECTION 28, TOWNSHIP 7 SOUTH, RANGE 67 WEST
TOWN OF CASTLE ROCK, COUNTY OF DOUGLAS, STATE OF COLORADO

PERENNIAL

LANDSCAPE PLAN

SHEET 8 OF 17





SITE DEVELOPMENT PLAN

LOT 3C THE MEADOWS FILING NO.19 PARCEL 2N AMENDMENT NO. 1

THE MEADOWMARK

A PORTION OF SECTION 28, TOWNSHIP 7 SOUTH, RANGE 67 WEST
TOWN OF CASTLE ROCK, COUNTY OF DOUGLAS, STATE OF COLORADO

NOTES:

1. REMOVE ALL DEAD OR DAMAGED WOOD AFTER PLANTING.
2. PRIOR TO THE FIRST FREEZE, YOUNG AND THIN-BARKED TREES MUST BE WRAPPED WITH PROFESSIONAL TREE WRAP. TREE WRAP MUST BE REMOVED AFTER LAST FROST, THE FOLLOWING SPRING.

EVERGREEN | DECIDUOUS

USE 3 GUY ASSEMBLIES FOR EVERGREENS AND TREES OVER 3" CALIPER

TOP MOST ROOT IN ROOTBALL: 1"-2" ABOVE EXISTING GRADE

4" OF ORGANIC MULCH APPLIED OVER PLANTING AREA AND 6" AWAY FROM TRUNK. MULCH TO BE EXTENDED TO THE DRIPLINE OF THE TREE.

EXISTING GRADE

BACKFILL WITH AMENDED TOPSOIL FROM HOLE

BURLAP, ROPE, AND WIRE MUST BE COMPLETELY REMOVED FROM ROOTBALL

PLANTING HOLE SHALL BE SAUCER-SHAPED AND 3 TIMES THE SIZE OF THE ROOTBALL. ADDITIONAL 3--FT AREA SURROUNDING THE PLANTING HOLE MUST BE AMENDED WITH 4 CY OF COMPOST PER 1,000 SQ FT AND ROTOTILLED TO A MINIMUM DEPTH OF 6".

INTACT ROOTBALL SITTING DIRECTLY ON TOP OF UNDISTURBED SOIL

16 GAUGE GALVANIZED WIRE

USE TWO LOOSELY FITTING STRAPS FOR ANCHOR STAKING, AND PLACE 18" ABOVE THE GROUND.

TREATED WOOD POST WITH GROMMETED NYLON STRAPS. USE 2 GUY WIRES. TREE STAKES MUST BE REMOVED AFTER ONE YEAR.

Sheet Revisions		
Date	STAFF CHANGES	Comments
3/21		

Town of Castle Rock
100 N. Willow St.
Castle Rock, CO 80104
Phone: (720) 733-2200
Fax: (720) 733-2217
Development Services

TREE PLANTING

Issued By: Town of Castle Rock, Development Services March 31, 2021

DETAIL PLAN NO.	
LS-1	
Sheet 1 of 2	

NOTES:

1. REMOVE ALL DEAD OR DAMAGED WOOD AFTER PLANTING.
2. PRIOR TO THE FIRST FREEZE, YOUNG AND THIN-BARKED TREES MUST BE WRAPPED WITH PROFESSIONAL TREE WRAP. TREE WRAP MUST BE REMOVED AFTER LAST FROST, THE FOLLOWING SPRING.

EVERGREEN | DECIDUOUS

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TREATED WOOD POST WITH GROMMETED NYLON STRAPS. USE 2 GUY WIRES. TREE STAKES MUST BE REMOVED AFTER ONE YEAR.

AMENDED TOPSOIL ADDED TO EXISTING GRADE ON DOWNHILL SIDE

Sheet Revisions		
Date	STAFF CHANGES	Comments
3/21		

Town of Castle Rock
100 N. Willow St.
Castle Rock, CO 80104
Phone: (720) 733-2200
Fax: (720) 733-2217
Development Services

TREE PLANTING SLOPES

Issued By: Town of Castle Rock, Development Services March 31, 2021

DETAIL PLAN NO.	
LS-2	
Sheet 2 of 2	

NOTES:

- * REMOVE DEAD OR BROKEN BRANCHES.
- * KEEP PLANTS MOIST AND SHADED UNTIL PLANTING.
- * DO NOT FERTILIZE FOR AT LEAST ONE GROWING SEASON.

SET SHRUBS PLUMB. SHRUB SPACING AS PER THE PLANS. FINISHED GRADE OF SHRUB BED TO BE 3"--4" BELOW ADJACENT FINISH GRADE AT EDGE.

PLANT ROOTBALL 1"--2" ABOVE FINISH GRADE IN CLAY SOIL AND AT GRADE IN SANDY SOIL.

4" SPECIFIED MULCH. PROVIDE 3" PLANTING RIM FOR SHRUBS NOT IN PLANTING BED. PROVIDE SAUCER ON DOWNHILL SIDE ON SLOPES. NO PLANTING RIM FOR SHRUBS IN PLANTING BED. KEEP MULCH 6" AWAY FROM WOODY BASE OF SHRUB.

CULTIVATE SOIL TO DEPTH OF ROOTBALL. THOROUGHLY BACKFILL HOLE WITH AMENDED SOIL. SCARIFY SIDES OF PLANTING HOLE. ROOTBALL SHALL REST ON FIRM, UNDISTURBED SOIL.

CUT AND REMOVE ALL BURLAP ON ROOTBALL. REMOVE ALL TREATED, GREEN BURLAP AND PLASTIC CONTAINERS. FOR POT BOUND PLANTS ONLY: MAKE 4-5 VERTICAL CUTS IN ROOTBALL HALF THE THICKNESS OF THE ROOTBALL AND PLANT IMMEDIATELY.

12" MIN

PLANTING BED

Sheet Revisions		
Date	STAFF CHANGES	Comments
3/21		

Town of Castle Rock
100 N. Willow St.
Castle Rock, CO 80104
Phone: (720) 733-2200
Fax: (720) 733-2217
Development Services

SHRUB PLANTING

Issued By: Town of Castle Rock, Development Services March 31, 2021

DETAIL PLAN NO.	
LS-3	
Sheet 1 of 1	

CORTEN STEEL PLATES SANDWICH 3"x 3" TUBULAR STEEL STRUCTURAL FRAME

RHYOLITE STONE

COMMUNITY NAME

8'-0"

2'-7"

7"

1'-0"

8"

1'-6"

1'-4"

4'-0"

NOTES:

1. REFERENCE TIMEBERMILL PARKWAY DESIGN STANDARDS
2. DETAIL FOR DESIGN INTENT ONLY, PROVIDE SHOPS AT TIME OF CONSTRUCTION
3. ALL SIGNAGE WILL BE APPROVED AT SEPARATE PERMIT

BUILDING SIGN CODE COMPARISON		
MEASUREMENT	SIGN CODE	PROPOSED
HEIGHT	20FT	4FT
SQUARE FOOTAGE	50SF	32SF

*SIGN TO BE APPROVED IN SEPARATE SIGN PERMIT
PROPOSED SIGN MEETS THE TIMBER MILL PARKWAY DESIGN STANDARDS

ENTRY MONUMENT

SCALE: NOT TO SCALE

PREPARED FOR:

CASTLE VIEW
OWNER, LLC

LANDSCAPE
CERTIFICATION:

CHRISTOPHER CHARLES HOY

LICENSE NUMBER
476

STATE OF COLORADO
LICENSED LANDSCAPE ARCHITECT

DATE:

SDP_01	06/08/2022
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SDP_05	12/29/2022

SHEET TITLE:

LANDSCAPE
DETAILS

SITE DEVELOPMENT PLAN

LOT 3C THE MEADOWS FILING NO.19 PARCEL 2N AMENDMENT NO. 1

THE MEADOWMARK

A PORTION OF SECTION 28, TOWNSHIP 7 SOUTH, RANGE 67 WEST

TOWN OF CASTLE ROCK, COUNTY OF DOUGLAS, STATE OF COLORADO



HYDROZONE LEGEND

	TEMPORARY IRRIGATION FOR ESTABLISHMENT (ON-GRADE STAKED POP-UP MP ROTATORS)
	IRRIGATED NATIVE SEED (12" POP-UP MP ROTATORS)
	IRRIGATED SOD (6" POP-UP MP ROTATORS)
	DRIP IRRIGATION (POINT SOURCE EMITTERS)

HYDROZONE CALCULATIONS

	HYDROZONE CATEGORY	IRRIGATED AREA (SF)
4	HIGH: TURF	2,361 SF
3	MODERATE: TREES/SHRUBS/GROUNDCOVERS	18,240 SF
2	LOW: TREES/SHRUBS/GROUNDCOVERS OR IRRIGATED NATIVE SEED	25,001 SF
1	VERY LOW: NATIVE SEED	22,283 SF

PREPARED FOR:

CASTLE VIEW
OWNER, LLC

LANDSCAPE
CERTIFICATION:

CHRISTOPHER CHARLES HOY
LICENSE NUMBER
476
STATE OF COLORADO
LICENSED LANDSCAPE ARCHITECT

IRRIGATION NARRATIVE

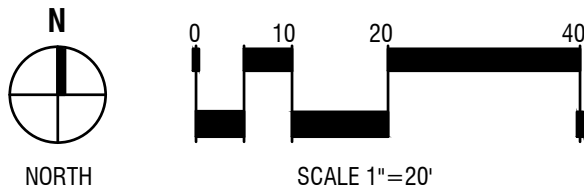
- ALL LANDSCAPE PLANT MATERIAL WILL BE ESTABLISHED WITH AN AUTOMATIC IRRIGATION SYSTEM. THE LANDSCAPE IRRIGATION WILL BE FED FROM A DOMESTIC WATER TAP WITH A DEDICATED METER, A REDUCED PRESSURE BACKFLOW ASSEMBLY, MASTER VALVE AND FLOW METER WILL BE INSTALLED DOWNSTREAM OF THE METER.
- PLANT MATERIAL WILL BE GROUPED INTO LATERAL ZONES BASED ON SIMILAR WATER REQUIREMENTS TO REDUCE OVERALL WATER CONSUMPTION WHILE ALLOWING PLANTS TO SUSTAIN HEALTHY, VIGOROUS GROWTH.
- TURF AREAS WILL BE TURF TYPE TALL FESCUE AND WILL BE IRRIGATED USING 6" POP-UP ROTATOR TYPE SPRINKLER HEADS.
- PLANTING BEDS WITH TREES, SHRUBS, GROUNDCOVERS AND ORNAMENTAL GRASSES WILL BE IRRIGATED USING POINT SOURCE DRIP AND DRIPPERLINE IRRIGATION METHODS.
- NATIVE SEED AREAS IDENTIFIED AS "VERY LOW WATER" USE WILL BE IRRIGATED WITH AN ABOVE-GROUND, TEMPORARY IRRIGATION SYSTEM UNTIL FULL ESTABLISHMENT. REMOTE CONTROL IRRIGATION VALVES WILL BE INSTALLED ON THE PERMANENT IRRIGATION MAINLINE. LATERAL IRRIGATION LINES AND SPRINKLER HEADS WILL BE INSTALLED ON THE SURFACE. REMOTE CONTROL VALVES WILL BE WIRED TO AND MANAGED THROUGH THE IRRIGATION CONTROLLER. UPON ESTABLISHMENT OF THE NATIVE SEED, THE TEMPORARY IRRIGATION LATERALS AND SPRINKLER HEADS WILL BE REMOVED FROM THE SYSTEM.
- TREES LOCATED WITHIN THE NATIVE SEED AREAS WILL BE IRRIGATED USING A SEPARATE, PERMANENT DRIP IRRIGATION ZONE WHICH WILL REMAIN IN PLACE FOLLOWING REMOVAL OF THE TEMPORARY IRRIGATION FOR SEED ESTABLISHMENT.
- ALL AREAS LOCATED OFF-SITE DISTURBED THROUGH PROJECT INFRASTRUCTURE CONSTRUCTION ARE TO BE RE-SEEDED. ALL RE-SEEDED AREAS TO BE IRRIGATED BY WATER TRUCK OR OTHER MEANS OF SUPPLEMENTAL WATERING UNTIL FINAL ESTABLISHMENT.

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SHEET TITLE:

IRRIGATION PLAN



LOT 2N D2A, THE MEADOWS FILING NO. 19
SITE DEVELOPMENT PLAN

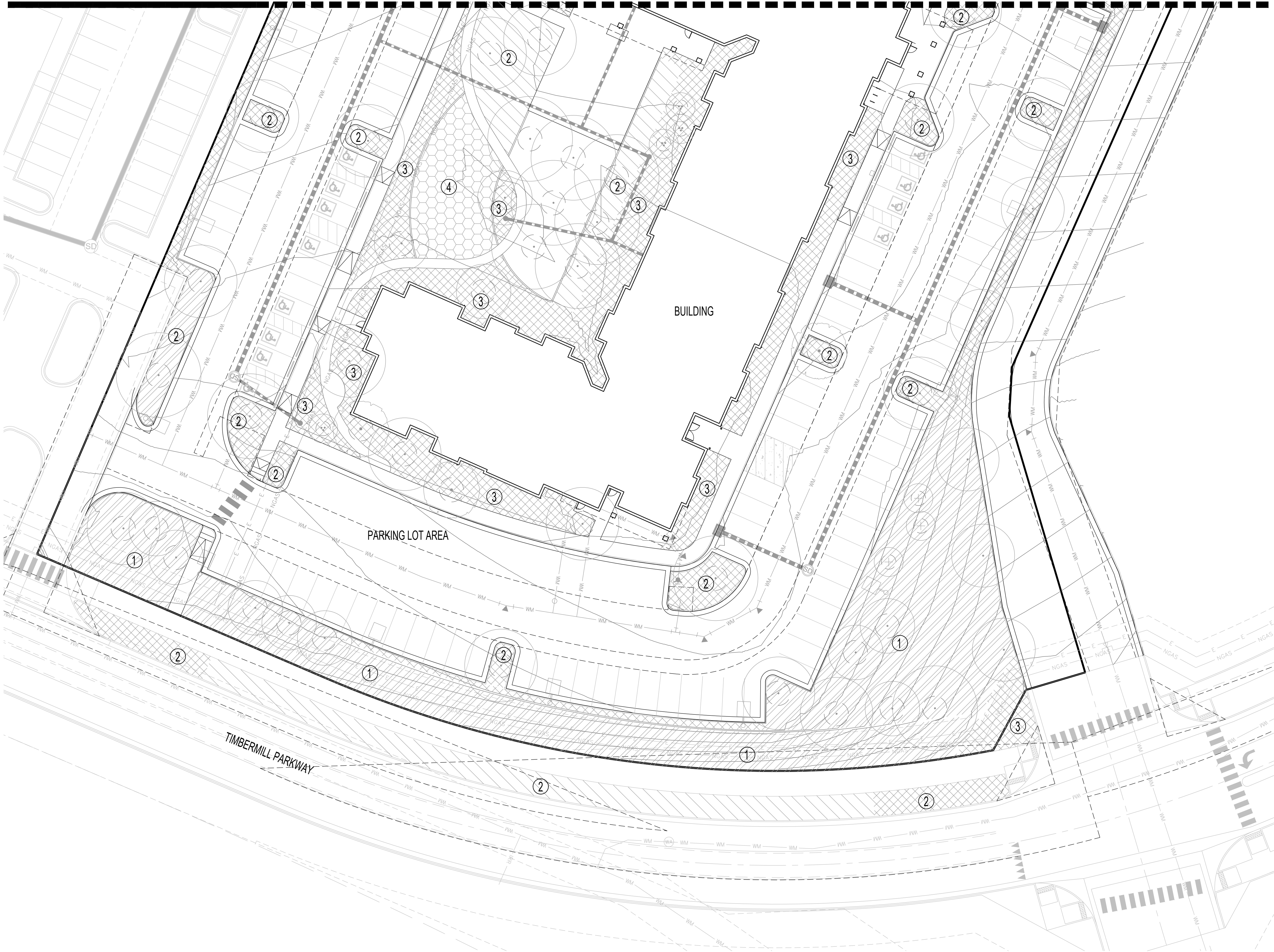
TOWN OF CASTLE ROCK PROJECT NO. SPD 22-0032

SITE DEVELOPMENT PLAN

LOT 3C THE MEADOWS FILING NO.19 PARCEL 2N AMENDMENT NO. 1

THE MEADOWMARK

A PORTION OF SECTION 28, TOWNSHIP 7 SOUTH, RANGE 67 WEST
TOWN OF CASTLE ROCK, COUNTY OF DOUGLAS, STATE OF COLORADO



HYDROZONE LEGEND

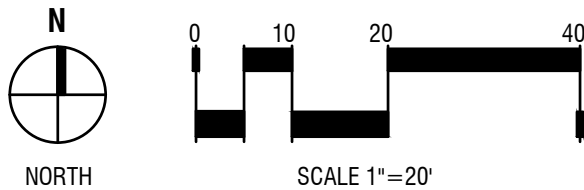
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HYDROZONE CALCULATIONS

	HYDROZONE CATEGORY	IRRIGATED AREA (SF)
4	HIGH: TURF	2,361 SF
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IRRIGATION NARRATIVE

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LOT 2N D2A, THE MEADOWS FILING NO. 19
SITE DEVELOPMENT PLAN

TOWN OF CASTLE ROCK PROJECT NO. SPD 22-0032



PREPARED FOR:

CASTLE VIEW
OWNER, LLC

LANDSCAPE CERTIFICATION:

CHRISTOPHER CHARLES HOY
LICENSE NUMBER
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STATE OF COLORADO
LICENSED LANDSCAPE ARCHITECT

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SHEET TITLE:

IRRIGATION PLAN

SITE DEVELOPMENT PLAN

LOT 3C THE MEADOWS FILING NO.19 PARCEL 2N AMENDMENT NO. 1

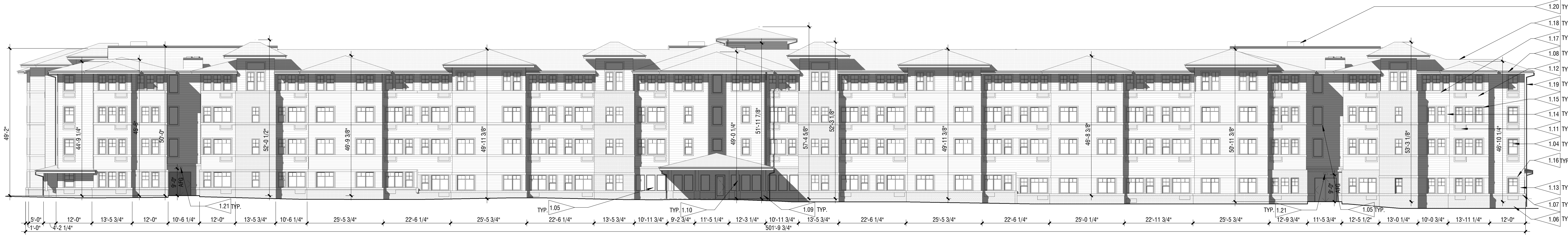
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TOWN OF CASTLE ROCK, COUNTY OF DOUGLAS, STATE OF COLORADO

UNIVERSITY OF COLORADO

301 W. 45TH AVE • DENVER, CO 80216 • 303.433.4094

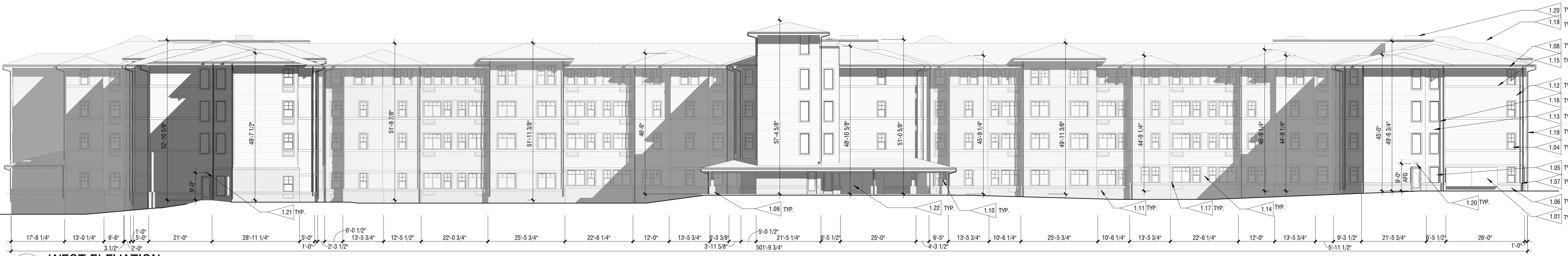


1 EAST ELEVATION

1/16" = 1'-0"

PREPARED FOR:

CASTLE VIEW
OWNER LLC



2 WEST ELEVATION

1/16" = 1'-0"

LANDSCAPE
CERTIFICATION:

FLAGNOTES	
1.01	ELECTRICAL METERS, PAINT TO MATCH ADJACENT FINISH.
1.04	VINYL WINDOWS TYPICAL AT UNITS, ALMOND FINISH
1.05	FIBER COMPOSITE WINDOWS TYPICAL AT PUBLIC SPACES AND AMENITIES, ALMOND FINISH
1.06	BRICK MASONRY VENEER, RE: LEGEND
1.07	BRICK ACCENT BAND
1.08	FIBER CEMENT FASCIA PAINT SW 6384, WITH PREFINISHED METAL GUTTER TO MATCH
1.09	BRICK VENEER COLUMN BASE TO MATCH BLDG BRICK, TYP ON EXTERIOR GLULAM COLUMNS
1.10	EXPOSED DOUGLAS FIR GLULAM COLUMN, SAND AND SEAL FOR NATURAL WOOD FINISH ON BRICK VENEER BASE TO MATCH BLDG BRICK
1.11	MECHANICAL PTAC EXTERIOR LOUVER, ANODIZED ALUMINUM FINISH
1.12	SIDING 1, RE: LEGEND
1.13	SIDING 2, RE: LEGEND
1.14	SIDING 3, RE: LEGEND
1.15	SIDING 1 TRIM, RE: LEGEND
1.16	SIDING 2 TRIM, RE: LEGEND
1.17	SIDING 3 TRIM, RE: LEGEND
1.18	ASPHALT SHINGLE ROOF, RE: LEGEND
1.19	DOWNSPOUT, MEDIUM BRONZE
1.20	ALL ROOF TOP MECHANICAL EQUIPMENT TO BE SCREENED FROM VIEW FROM RIGHT OF WAY, RE: LEGEND
1.21	EXTERIOR WALL MOUNTED LED AREA LIGHT, RE: ELECTRICAL
1.22	ELECTRICAL DISCONNECT, PAINTED TO MATCH EXTERIOR FINISHES

ELEVATIONS MATERIAL LEGEND	
	MODULAR - LAKEWOOD BRICK COMPANY- EBONY SMOOTH W/ EBONY GRAIN ACCENTS.
	SIDING 1- ALLURA FIBER CEMENT TRADITIONAL LAP SIDING 6'-1/4" - PRIMED FOR PAINT, SW 7602 DEES WAX, SIDING 1 TRIM - ALLURA TRIM 1" x 6" - SW 6384 CUT THE MUSTARD.
	SIDING 2- ALLURA FIBER CEMENT SMOOTH LAP SIDING 9'-1/4" - PRIMED FOR PAINT, SW 6672 MORNING SUN - SIDING 2 TRIM- ALLURA TRIM 1" x 6" - SW 7026 GRIFFIN.
	SIDING 3- ALLURA FIBER CEMENT SMOOTH LAP SIDING - PRIMED FOR PAINT, SW 7027 HICKORY SMOKE - SIDING 3 TRIM- ALLURA TRIM 1" x 6" - SW 7026 GRIFFIN.
	ASPHALT SHINGLE ROOF - CERTAINTED LANDMARK SOLARIS - MOJAVE TAN

GENERAL NOTES	
GENERAL NOTES:	
1. ALL VERTICAL DIMENSIONS TO ROOF HEIGHTS ARE FROM FINISH FLOOR ELEVATION.	
2. ALL ROOF TOP MECHANICAL EQUIPMENT WILL BE SCREEN FROM VIEW FROM RIGHT AWAY.	
3. ALL EXTERIOR BUILDING MOUNTED ELECTRICAL EQUIPMENT WILL BE PAINTED TO MATCH ADJACENT BUILDING MATERIALS.	
4. THERE IS NO PROPOSED BUILDING SIGNAGE, REFER TO THE LANDSCAPE PLAN AND DETAILS FOR MONUMENT SIGN.	

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SHEET TITLE:

BUILDING
ELEVATIONS

SITE DEVELOPMENT PLAN

LOT 3C THE MEADOWS FILING NO.19 PARCEL 2N AMENDMENT NO. 1

THE MEADOWMARK

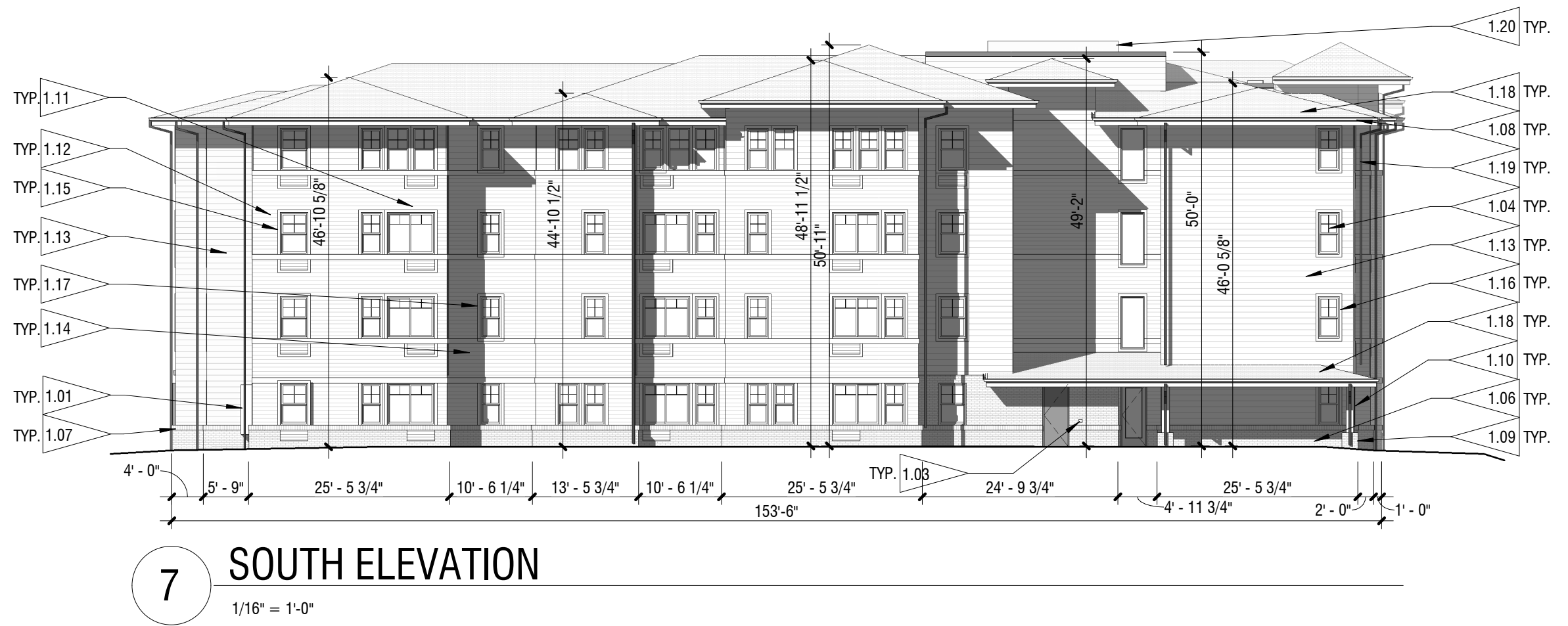
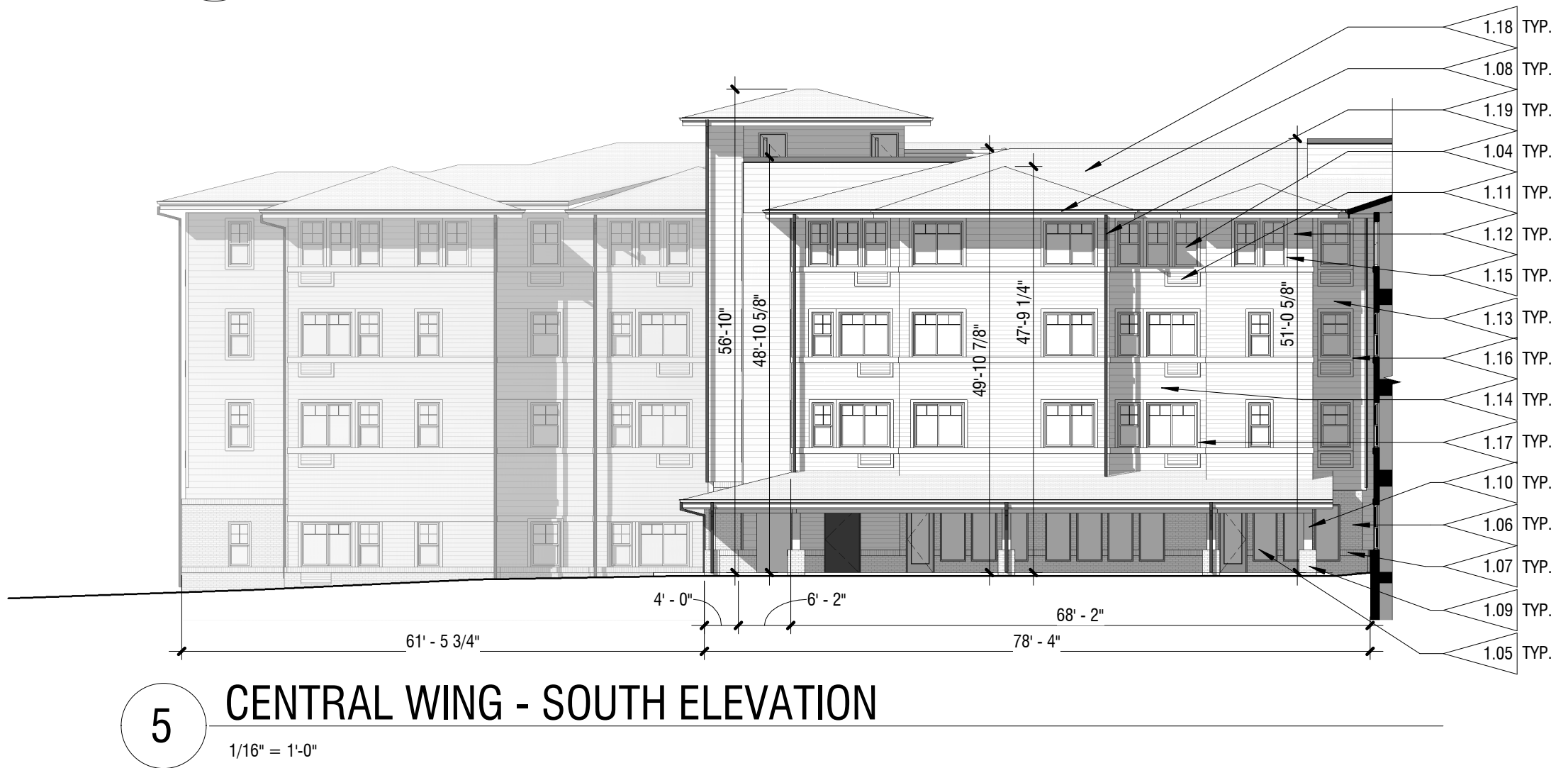
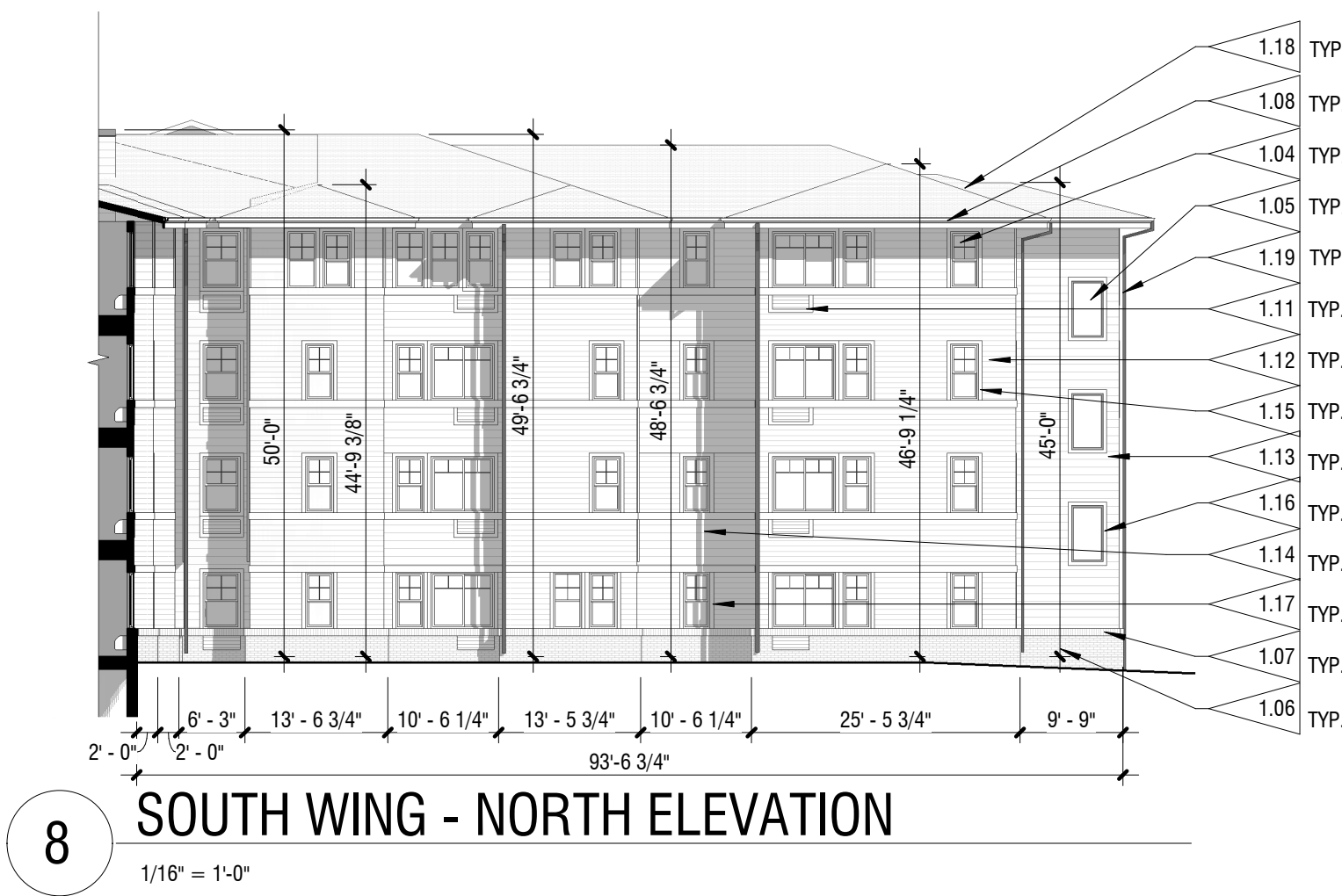
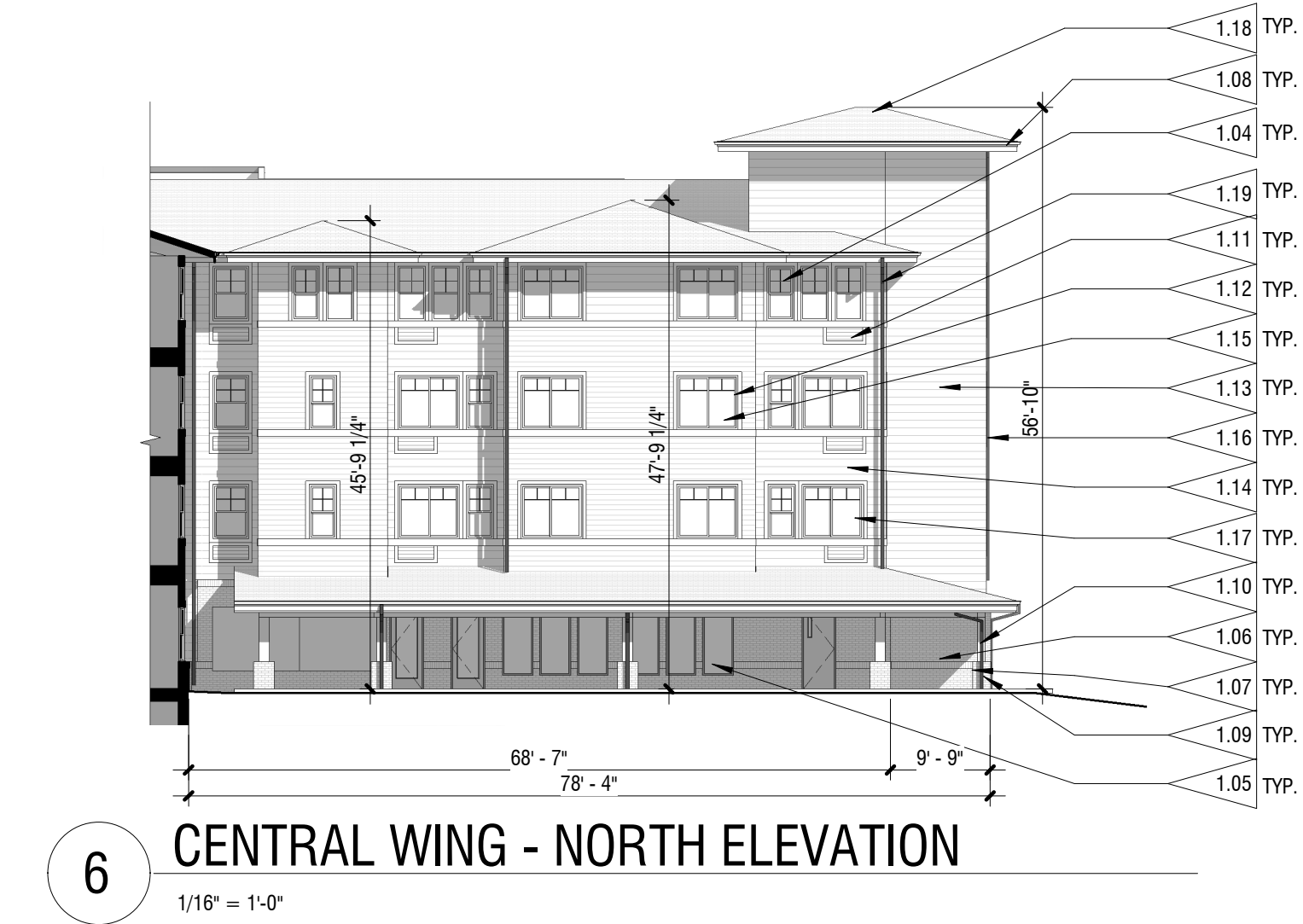
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TOWN OF CASTLE ROCK, COUNTY OF DOUGLAS, STATE OF COLORADO



ELEVATIONS MATERIAL LEGEND	
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	ASPHALT SHINGLE ROOF - CERTAINTED LANDMARK SOLARIS - MOJAVE TAN

GENERAL NOTES	
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4. THERE IS NO PROPOSED BUILDING SIGNAGE. REFER TO THE LANDSCAPE PLAN AND DETAILS FOR MONUMENT SIGN.	

FLAGNOTES	
1.01	ELECTRICAL METERS, PAINT TO MATCH ADJACENT FINISH.
1.03	RECESSED KNOX BOX, LOCATION TO BE COORDINATED WITH AHJ
1.04	VINYL WINDOWS TYPICAL AT UNITS, ALMOND FINISH
1.05	FIBER COMPOSITE WINDOWS TYPICAL AT PUBLIC SPACES AND AMENITIES, ALMOND FINISH
1.06	BRICK MASONRY VENEER, RE: LEGEND
1.07	BRICK ACCENT BAND
1.08	FIBER CEMENT FASCIA PAINT SW 6384, WITH PREFINISHED METAL GUTTER TO MATCH
1.09	BRICK VENEER COLUMN BASE TO MATCH BLDG BRICK, TYP ON EXTERIOR GLULAM COLUMNS
1.10	EXPOSED DOUGLAS FIR GLULAM COLUMN, SAND AND SEAL FOR NATURAL WOOD FINISH ON BRICK VENEER BASE TO MATCH BLDG BRICK
1.11	MECHANICAL PTAC EXTERIOR LOUVER, ANODIZED ALUMINUM FINISH
1.12	SIDING 1, RE: LEGEND
1.13	SIDING 2, RE: LEGEND
1.14	SIDING 3, RE: LEGEND
1.15	SIDING 1 TRIM, RE: LEGEND
1.16	SIDING 2 TRIM, RE: LEGEND
1.17	SIDING 3 TRIM, RE: LEGEND
1.18	ASPHALT SHINGLE ROOF, RE: LEGEND
1.19	DOWNSPOUT, MEDIUM BRONZE
1.20	ALL ROOF TOP MECHANICAL EQUIPMENT TO BE SCREENED FROM VIEW FROM RIGHT OF WAY, RE: LEGEND



PREPARED FOR:

CASTLE VIEW
OWNER LLC

LANDSCAPE
CERTIFICATION:

DATE:

SDP_01	05/20/2022
SDP_02	08/24/2022
SDP_03	10/28/2022
SDP_04	12/12/2022
SDP_05	12/29/2022

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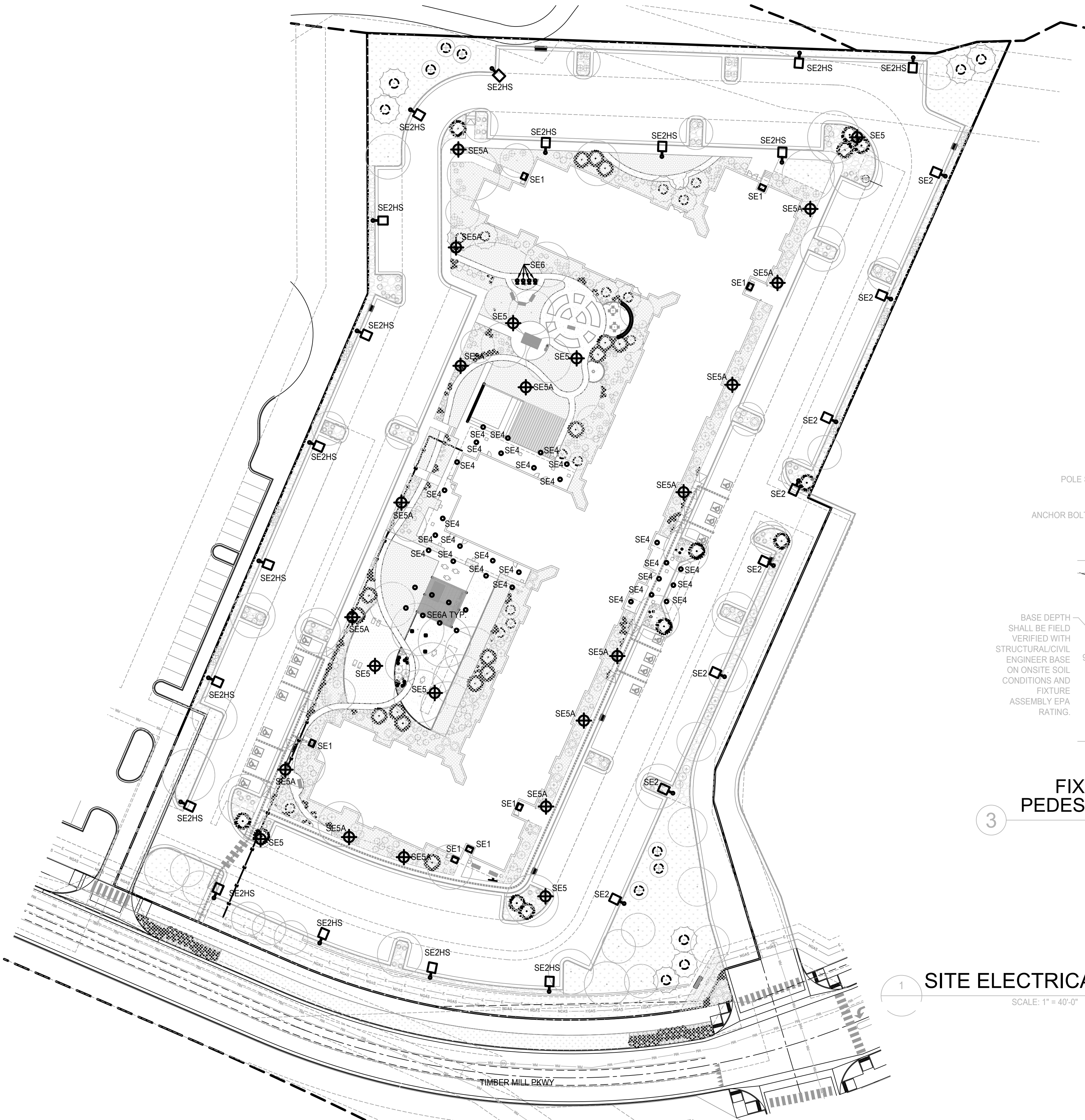
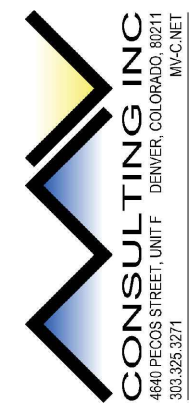
BUILDING
ELEVATIONS

SITE DEVELOPMENT PLAN

LOT 3C THE MEADOWS FILING NO.19 PARCEL 2N AMENDMENT NO. 1

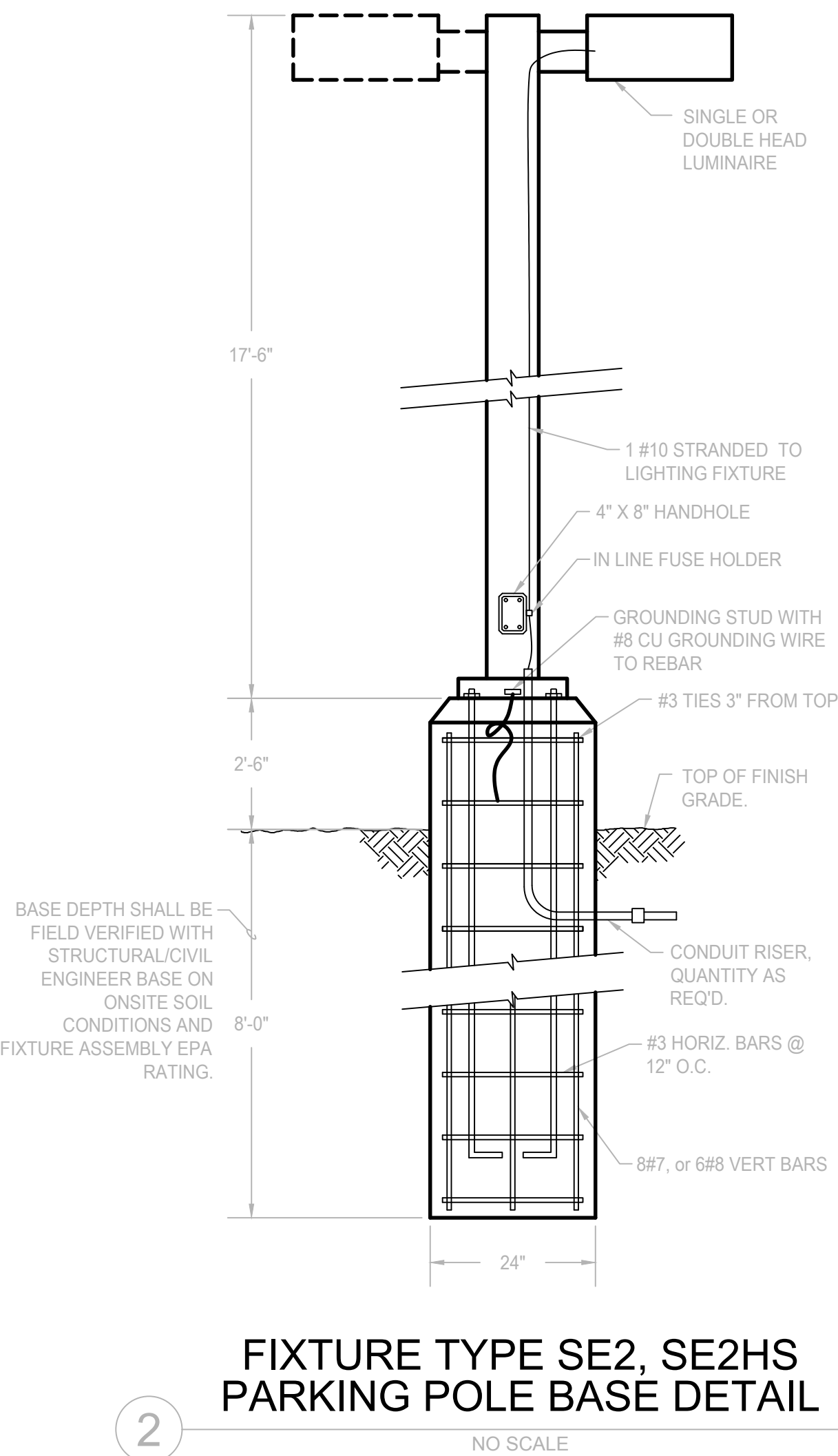
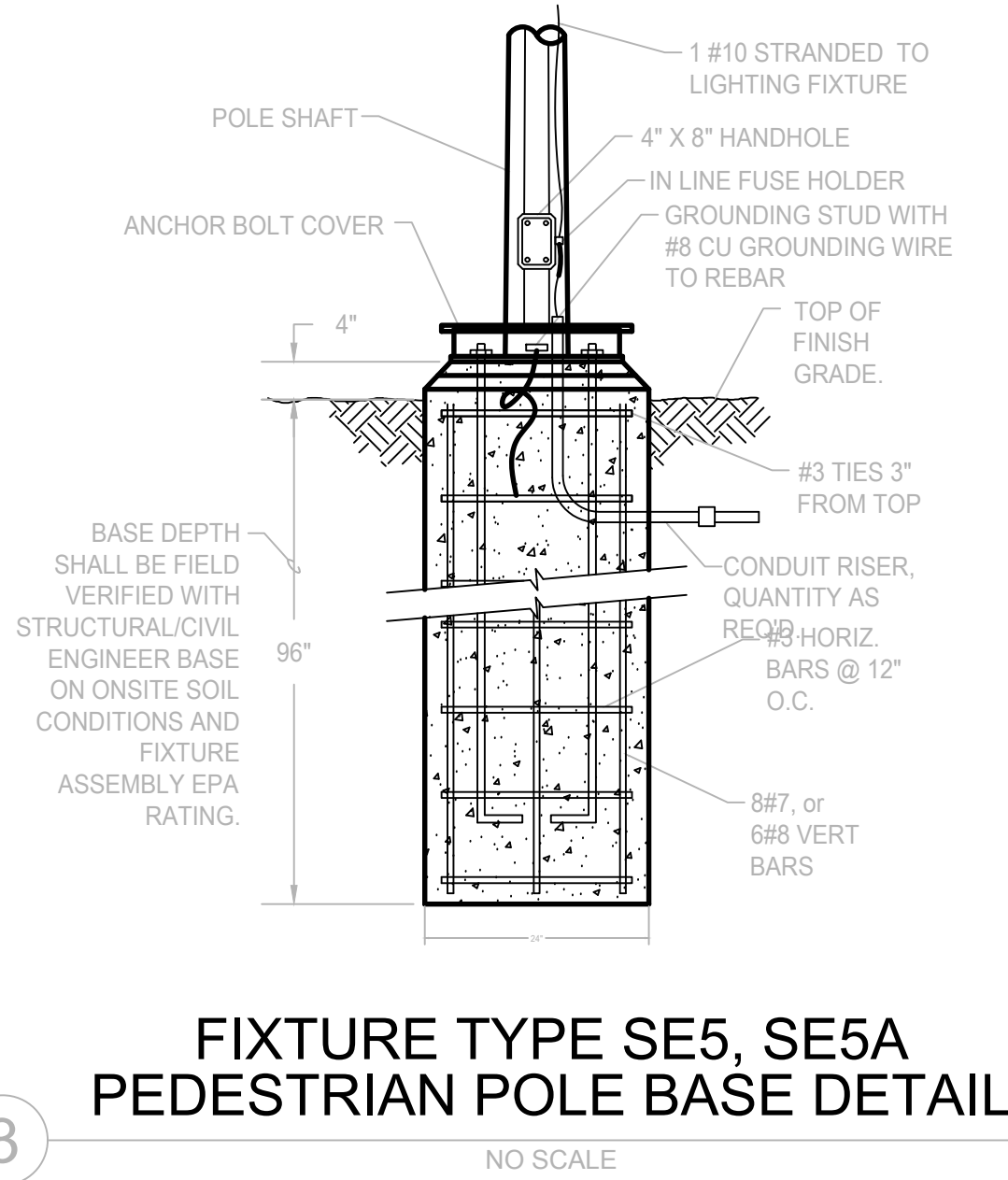
THE MEADOWMARK

A PORTION OF SECTION 28, TOWNSHIP 7 SOUTH, RANGE 67 WEST
TOWN OF CASTLE ROCK, COUNTY OF DOUGLAS, STATE OF COLORADO

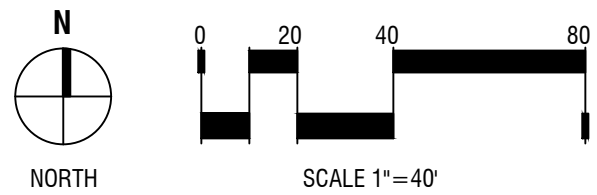


Statistics						
Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
Calc Zone #1	+	1.1 fc	5.0 fc	0.0 fc	N/A	N/A

- #### GENERAL NOTES
- ALL GENERAL AREA LIGHTING AT PARKING LOTS AND BUILDING ENTRIES, FIXTURE TYPES SE1, SE2, AND SE4 SHALL BE PHOTO CELL ON AT DUSK, AND TIME CLOCK OFF AT DAWN, AND SHALL BE DIMMED BY 30% FROM MIDNIGHT TO DAWN.
 - DECORATIVE PATHWAY PEDESTRIAN LIGHTING, TRELLIS LIGHTING, AND LANDSCAPE LIGHTING SHALL BE PHOTOCELL ON AT DUSK AND TIME CLOCK OFF AT MIDNIGHT.
 - ANY PROPOSED LIGHT FIXTURES INSTALLED ON PRIVATE PROPERTY, ADJACENT TO THE PUBLIC ROW, SHALL BE ORIENTED IN SUCH A MANNER OR LIMITED IN LUMEN OUTPUT TO PREVENT GLARE PROBLEMS AND SHALL NOT EXCEED NATIONAL I.E.S. LIGHTING STANDARDS FOR DISABILITY GLARE.
 - LIGHT FIXTURES SHALL LOCATED, SHIELDED OR AIMED TO MITIGATE LIGHT TRESPASS ONTO ADJACENT PROPERTIES.
 - ALL PROVIDED EXTERIOR FIXTURES SHALL BE FULL CUT-OFF TYPE FIXTURES TO COMPLY WITH SEC. 10.7.4.2.A.1.
 - NO FORWARD THROW DISTRIBUTION FIXTURE, POLE MOUNTED FIXTURES AIMED AT THE BUILDING FACADE, OR UNSHIELDED WALL PACKS HAVE BEEN SPECIFIED.



1 SITE ELECTRICAL PLAN
SCALE: 1" = 40'-0"



PREPARED FOR:

CASTLE VIEW
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LANDSCAPE
CERTIFICATION:

DATE:	
SDP_01	05/20/2022
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SDP_04	12/12/2022
SDP_05	12/29/2022

SHEET TITLE:
SITE
ELECTRICAL
PLAN

SITE DEVELOPMENT PLAN

LOT 3C THE MEADOWS FILING NO.19 PARCEL 2N AMENDMENT NO. 1

THE MEADOWMARK

A PORTION OF SECTION 28, TOWNSHIP 7 SOUTH, RANGE 67 WEST
TOWN OF CASTLE ROCK, COUNTY OF DOUGLAS, STATE OF COLORADO

Catalog #: _____ Project: _____
Prepared By: _____ Date: _____ Type: _____

Opulence Small Post Top (OPS)

Outdoor Decorative Post Top



OVERVIEW	
Lumen Output Range	3,000 - 14,000
Wattage	20 - 100
Efficacy Range (LPW)	114 - 148
Fixture Weight (lb. Op)	25.0 (11.3)

QUICK LINKS

- [Ordering Guide](#)
- [Performance](#)
- [Photometrics](#)
- [Dimensions](#)

FEATURES & SPECIFICATIONS

Construction

- Rugged die-cast aluminum housing.
- Fixtures are finished with LSI's DuraGrip® polyester powder coat finishing process. The DuraGrip finish withstands extreme weather changes without cracking or peeling. Other standard LSI finishes available. Consult factory.

Optical System

- High density LED optical system delivers industry leading optical performance and visual comfort.
- 7 distribution types 3W, 4F, 5Q, 5C, 5R, 5D & AD
- Diffused lens version provides maximum visual comfort with reduced brightness and LED pixelization
- Available in 5000K, 4000K, 3500K, 3000K and 2700K color temperatures per ANSI C78.37.
- Minimum CRI of 80
- External Shield available for field installation (see accessory ordering information and dimensions for details).

Electrical

- High-performance driver features over-voltage, under-voltage, short-circuit and over temperature protection (6KV surge standard).
- 0-10V dimming driver (optional extended leads).

- Standard Universal Voltage (120-277 VAC) Input 50/60 Hz or optional High Voltage (347-480 VAC).
- Total harmonic distortion: <20%
- Operating temperature: -40°C to +40°C (-40°F to +104°F)
- Power factor: >90
- Input power stays constant over life.
- Field replaceable 10KV surge protection device meets a minimum Category C Low operation (per ANSI/IEEE C82.41.2).
- Driver is fully encased in potting material for moisture resistance and complies with FCC standards. Driver and key electronic components can easily be accessed.

Controls

- Integral passive infrared Bluetooth™ motion and photocell sensor options. Fixtures operate independently and can be commissioned via an iOS or Android configuration app.
- LSI's AirLink™ Blue lighting control system is a simple feature rich wireless Bluetooth mesh network. The integrated fixture sensor module provides wireless control of grouped fixtures based on motion sensors, daylight or a fully customizable schedule. Updates and modifications to the control strategy are easily implemented via an intuitive iOS app.

Installation

- Designed to mount directly to a 2 3/8" - 3" outer diameter tenon (4" tall).
- Optional flush mount accessory slips inside the top of a 4" round pole for a virtually seamless transition from pole to luminaire.

Warranty

- LSI luminaires carry a 5-year limited warranty. Refer to <https://www.lsiincorp.com/resources/terms-conditions-warranty/> for more information.

Listings

- Listed to UL 1598 and UL 8750.
- Meets Buy American Act requirements.
- IDA compliant, with 3000K and warmer color temperature selection.
- Title 24 Compliant; see local ordinance for qualification information.
- Suitable for wet locations.
- IP66 rated Luminaire per IEC 60598-1.
- 3G rated for ANSI C136.31 high vibration applications.
- DesignLights Consortium® (DLC) qualified product. Not all versions of this product may be DLC qualified. Please check the DLC Qualified Products List at www.designlights.org/QPL to confirm which versions are qualified.

excelsior™ LIGHTING, INC. MODEL FA-1 12V 50W MR16 8W LED FA-1
Simply Better by Design™

Model	FA-1
Lamp:	MR16 Halogen or LED
Maximum Wattage:	50 watt [8 watt LED]
Input Voltage:	12V (remote transformer required)
Material:	Machined Aluminum
Hardware:	Stainless Steel
Finishes:	Seven Polyester Powder Coat
Knuckle:	Tapered & Positive Locking
Lens:	Tempered Clear Glass, Flush lens
Cap Accessories:	Holds Three accessories (optional)
Mounting:	1/2" NPS (order mount separately)
Socket:	GY-6.35 Bi Pin Porcelain
IP Rating:	66
Certification:	Wet location
Wiring:	2ft. 18/2 LV wire leads
Weight:	1.5 lbs.
Warranty:	10 Years
Dimensions:	2 3/8" dia. x 6" overall



Shown in Bronze Powder Coat Finish (BZ)



METALS:

6061-T6 Aluminum



Mounting Stake Options:



ORDERING LOGIC:

Model: FA - 1

Metal: A - Aluminum

Finish: BK - Black
BZ - Bronze
WT - White
BG - Beige
BKT - Black Texture
BZT - Bronze Texture
SL - Silver
CA - Clear Anodized

ORDERING EXAMPLE: FA - 1 - A - BK

FLUSH LENS FEATURE:

To reduce the amount of mineral deposits that build up on the fixture lens, our 'Flush Lens' feature is standard on our Model FA-1. Caps drain water even when aimed straight up.

ANODIZING PROTECTION:

- To increase the corrosion resistance in our products, we use a three-step process:
1. Machine 6061-T6 copper-free aluminum.
 2. Anodized pre-treatment applied.
 3. Polyester powder coat finish applied.



Xseal

SEALED WIRE PASS-THRU SYSTEM:

Our molded, high-temperature silicone wire pass-thru system is installed into every product to prevent water intrusion. Water will not leak into the lamp compartment when used for downlighting in trees. The socket is replaceable because it is not glued in.

McKINLEY (PAR20) IP66 RATED

DATE: _____ PROJECT: _____ TYPE: _____

CATALOG NUMBER LOGIC:

CATALOG NUMBER LOGIC:

MC - 512 - BLP

SERIES

MC - McKinley

LAMP TYPE

0 - By Others

510 - 6.5W/18DEG/2700K

511 - 6.5W/26DEG/2700K

512 - 6.5W/40DEG/2700K

513 - 6.5W/18DEG/3000K

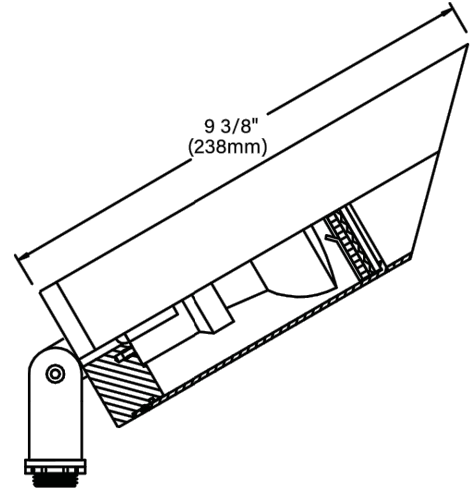
514 - 6.5W/26DEG/3000K

515 - 6.5W/40DEG/3000K

516 - 6.5W/40DEG/4000K

FINISH (See below for full-color swatches)

Standard Finishes (BZP, BZW, BLP, BLW, WHF, WHW, SAP, VER)



STANDARD FINISHES



Click [here](#) to view larger color swatches of these finishes on our website



B-K LIGHTING MADE IN THE USA 855-438-0880 | INFO@BKLIGHTING.COM | BKLIGHTING.COM

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2

FIXTURE TYPE SE6

N.T.S.

3

FIXTURE TYPE SE6A

N.T.S.

Catalog #: _____ Project: _____
Prepared By: _____ Date: _____ Type: _____

ORDERING GUIDE

TYPICAL ORDER EXAMPLE: OPS PT 8L 5Q UNV 40K8 BLK ALBCS1

Prefix	Mounting	Lumen Package*	Distribution
OPS - Opulence Small	PT - Post Top 3/8" x 4" (4000)	BL - 3,000 Lumens 4K - 4,000 Lumens 5Q - 5,000 Lumens 8L - 8,000 Lumens 10L - 10,000 Lumens 14L - 14,000 Lumens	SE5 - Type 5 Concentrated SE6 - Type 6 Concentrated SE7 - Type 7 Concentrated SE8 - Type 8 Concentrated SE9 - Type 9 Concentrated SE10 - Type 10 Concentrated SE11 - Type 11 Concentrated SE12 - Type 12 Concentrated SE13 - Type 13 Concentrated SE14 - Type 14 Concentrated SE15 - Type 15 Concentrated SE16 - Type 16 Concentrated SE17 - Type 17 Concentrated SE18 - Type 18 Concentrated SE19 - Type 19 Concentrated SE20 - Type 20 Concentrated SE21 - Type 21 Concentrated SE22 - Type 22 Concentrated SE23 - Type 23 Concentrated SE24 - Type 24 Concentrated SE25 - Type 25 Concentrated SE26 - Type 26 Concentrated SE27 - Type 27 Concentrated SE28 - Type 28 Concentrated SE29 - Type 29 Concentrated SE30 - Type 30 Concentrated SE31 - Type 31 Concentrated SE32 - Type 32 Concentrated SE33 - Type 33 Concentrated SE34 - Type 34 Concentrated SE35 - Type 35 Concentrated SE36 - Type 36 Concentrated SE37 - Type 37 Concentrated SE38 - Type 38 Concentrated SE39 - Type 39 Concentrated SE40 - Type 40 Concentrated SE41 - Type 41 Concentrated SE42 - Type 42 Concentrated SE43 - Type 43 Concentrated SE44 - Type 44 Concentrated SE45 - Type 45 Concentrated SE46 - Type 46 Concentrated SE47 - Type 47 Concentrated SE48 - Type 48 Concentrated SE49 - Type 49 Concentrated SE50 - Type 50 Concentrated SE51 - Type 51 Concentrated SE52 - Type 52 Concentrated SE53 - Type 53 Concentrated SE54 - Type 54 Concentrated SE55 - Type 55 Concentrated SE56 - Type 56 Concentrated SE57 - Type 57 Concentrated SE58 - Type 58 Concentrated SE59 - Type 59 Concentrated SE60 - Type 60 Concentrated SE61 - Type 61 Concentrated SE62 - Type 62 Concentrated SE63 - Type 63 Concentrated SE64 - Type 64 Concentrated SE65 - Type 65 Concentrated SE66 - Type 66 Concentrated SE67 - Type 67 Concentrated SE68 - Type 68 Concentrated SE69 - Type 69 Concentrated SE70 - Type 70 Concentrated SE71 - Type 71 Concentrated SE72 - Type 72 Concentrated SE73 - Type 73 Concentrated SE74 - Type 74 Concentrated SE75 - Type 75 Concentrated SE76 - Type 76 Concentrated SE77 - Type 77 Concentrated SE78 - Type 78 Concentrated SE79 - Type 79 Concentrated SE80 - Type 80 Concentrated SE81 - Type 81 Concentrated SE82 - Type 82 Concentrated SE83 - Type 83 Concentrated SE84 - Type 84 Concentrated SE85 - Type 85 Concentrated SE86 - Type 86 Concentrated SE87 - Type 87 Concentrated SE88 - Type 88 Concentrated SE89 - Type 89 Concentrated SE90 - Type 90 Concentrated SE91 - Type 91 Concentrated SE92 - Type 92 Concentrated SE93 - Type 93 Concentrated SE94 - Type 94 Concentrated SE95 - Type 95 Concentrated SE96 - Type 96 Concentrated SE97 - Type 97 Concentrated SE98 - Type 98 Concentrated SE99 - Type 99 Concentrated SE100 - Type 100 Concentrated

Voltage	Color Temp	Finish	Controls
UNV - Universal Voltage (120-277V) HV - High Voltage (347-480V)	50K - 5,000 CCT - 80 CRI 40K - 4,000 CCT - 80 CRI 30K - 3,000 CCT - 80 CRI 27K - 2,700 CCT - 80 CRI	BKZ - Dark Bronze BLK - Black WHF - White BKT - Black Texture BZT - Bronze Texture SL - Silver CA - Clear Anodized	(Blank) - None Wireless Controls System ALBCS1 - AirLink Blue Wireless Motion & Photo Sensor Controller (8-24 MHz) ALBCS2 - AirLink Blue Wireless Motion & Photo Sensor Controller (25-47 MHz) Wireless Controls System CRTP - 7 Pin Control Remotecode ANSI C136.41 MWSB11 - Integral Bluetooth™ Motion and Photocell Sensor (8-24 MHz) MWSB12 - Integral Bluetooth™ Motion and Photocell Sensor (25-47 MHz) EST - 10-10V Dimming leads extended to housing exterior

Accessory Ordering Information

DESCRIPTION	Order Number
Twist Lock Photocell (120V) for use with CRTP	122814
Twist Lock Photocell (200-277V) for use with CRTP	122815
Twist Lock Photocell (200-277V) for use with CRTP	122816
Twist Lock Photocell (480V) for use with CRTP	122818
AirLink 5 Pin Twist Lock Controller	661408
AirLink 7 Pin Twist Lock Controller	661410
Shunting Cap for use with CRTP	140528
Single Fusing (120V)	FK130
Single Fusing (277V)	FK277
Double Fusing (480V)	DF480
Double Fusing (240V)	DF240

FOOTNOTES:
1 - 120-277V only. Not available with 14L Lumen Package.
2 - Control device is shipping per need for enhanced warranty. See Accessory Ordering Information.
3 - 120-277V and 200-277V are not available in the US. All other voltages are available in the US.
4 - Accessories are shipped separately and sold separately.
5 - Fusing must be installed in front of the fixture.
6 - "ULF" denotes finish. See Finish options.

DESCRIPTION	Order Number
Internal Flush Mount Adapter for 4" OD Round Pole	784480L4
Flush To Wall Mount Bracket	781580L4
CRTP Post To Arm Bracket	781580L4
Internal Tension Adapter for 4" Square Pole	684480L4
Internal Tension Adapter for 6" Square Pole	684480L4
Internal Tension Adapter for 8" Square Pole	684480L4
Decorative Round Cap (4" OD Round Pole)	408480L4
1/2" Linear Rod Spike (1/2" Recommended per Luminaire)	781582
EMS - External Shield (Black Finish Only)	781540

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Page 2/5 Rev. 05/24/22
SPEC-1094-A.0321

1

FIXTURE TYPE SE5, SE5A

N.T.S.

UNIVERSITY OF COLORADO

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PREPARED FOR:

CASTLE VIEW
OWNER LLC

LANDSCAPE CERTIFICATION:

DATE:

SDP_01	05/20/2022
SDP_02	08/24/2022
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SDP_05	12/29/2022

SHEET TITLE: SITE LIGHTING DETAILS

16

THE MEADOWMARK
SITE DEVELOPMENT PLAN

TOWN OF CASTLE ROCK PROJECT NO. SDP 22-0032

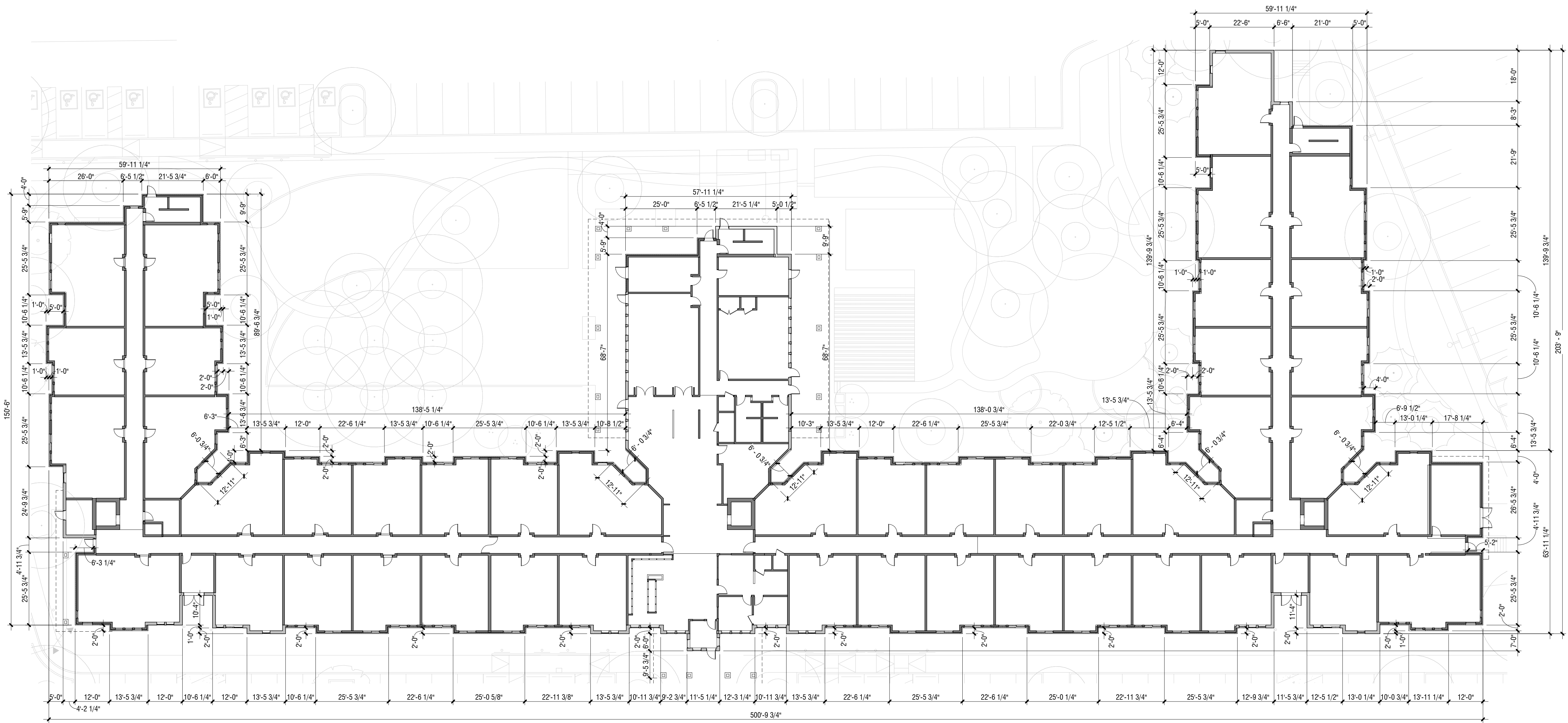
SHEET 16 OF 17

SITE DEVELOPMENT PLAN

LOT 3C THE MEADOWS FILING NO.19 PARCEL 2N AMENDMENT NO. 1

THE MEADOWMARK

A PORTION OF SECTION 28, TOWNSHIP 7 SOUTH, RANGE 67 WEST
TOWN OF CASTLE ROCK, COUNTY OF DOUGLAS, STATE OF COLORADO



TRUE N
PLAN N

1 BUILDING DIMENSIONS

1" = 20'-0"

UNIVERSITY OF COLORADO

PREPARED FOR:

CASTLE VIEW
OWNER LLC

LANDSCAPE
CERTIFICATION:

DATE:	
SDP_01	05/20/2022
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SDP_05	12/29/2022

SHEET TITLE:

BUILDING
HORIZONTAL
DIMENSIONS

SITE DEVELOPMENT PLAN

LOT 3C THE MEADOWS FILING NO.19 PARCEL 2N AMENDMENT NO. 1

THE MEADOWMARK

A PORTION OF SECTION 28, TOWNSHIP 7 SOUTH, RANGE 67 WEST
TOWN OF CASTLE ROCK, COUNTY OF DOUGLAS, STATE OF COLORADO



1 EAST ELEVATION
1/16" = 1'-0"

PREPARED FOR:

CASTLE VIEW
OWNER LLC

LANDSCAPE
CERTIFICATION:



2 WEST ELEVATION
1/16" = 1'-0"

FLAGNOTES

1.01	ELECTRICAL METERS, PAINT TO MATCH ADJACENT FINISH.
1.04	VINYL WINDOWS TYPICAL AT UNITS, ALMOND FINISH
1.05	FIBER COMPOSITE WINDOWS TYPICAL AT PUBLIC SPACES AND AMENITIES, ALMOND FINISH
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1.07	BRICK ACENT BAND
1.08	FIBER CEMENT FASCIA PAINT SW 6384, WITH PREFINISHED METAL GUTTER TO MATCH
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1.16	SIDING 2 TRIM, RE: LEGEND
1.17	SIDING 3 TRIM, RE: LEGEND
1.18	ASPHALT SHINGLE ROOF, RE: LEGEND
1.19	DOWNSPOUT, MEDIUM BRONZE
1.20	ALL ROOF TOP MECHANICAL EQUIPMENT TO BE SCREENED FROM VIEW FROM RIGHT AWAY
1.21	EXTERIOR WALL MOUNTED LED AREA LIGHT, RE: ELECTRICAL
1.22	ELECTRICAL DISCONNECT, PAINTED TO MATCH EXTERIOR FINISHES

ELEVATIONS MATERIAL LEGEND

	MODULAR - LAKEWOOD BRICK COMPANY- EBONY SMOOTH W/ EBONY GRAIN ACCENTS.
	SIDING 1- ALLURA FIBER CEMENT TRADITIONAL LAP SIDING 6'-1/4" - PRIMED FOR PAINT, SW 7602 DEES WAX, SIDING 1 TRIM - ALLURA TRIM 1" x 6" - SW 6384 CUT THE MUSTARD.
	SIDING 2- ALLURA FIBER CEMENT SMOOTH LAP SIDING 9'-1/4" - PRIMED FOR PAINT, SW 6672 MORNING SUN - SIDING 2 TRIM- ALLURA TRIM 1" x 6" - SW 7026 GRIFFIN.
	SIDING 3- ALLURA FIBER CEMENT SMOOTH LAP SIDING - PRIMED FOR PAINT, SW 7027 HICKORY SMOKE - SIDING 3 TRIM- ALLURA TRIM 1" x 6" - SW 7026 GRIFFIN.
	ASPHALT SHINGLE ROOF - CERTAINTED LANDMARK SOLARIS - MOJAVE TAN

GENERAL NOTES

- GENERAL NOTES:**
- ALL VERTICAL DIMENSIONS TO ROOF HEIGHTS ARE FROM FINISH FLOOR ELEVATION.
 - ALL ROOF TOP MECHANICAL EQUIPMENT WILL BE SCREEN FROM VIEW FROM RIGHT AWAY.
 - ALL EXTERIOR BUILDING MOUNTED ELECTRICAL EQUIPMENT WILL BE PAINTED TO MATCH ADJACENT BUILDING MATERIALS.
 - THERE IS NO PROPOSED BUILDING SIGNAGE, REFER TO THE LANDSCAPE PLAN AND DETAILS FOR MONUMENT SIGN.

DATE:

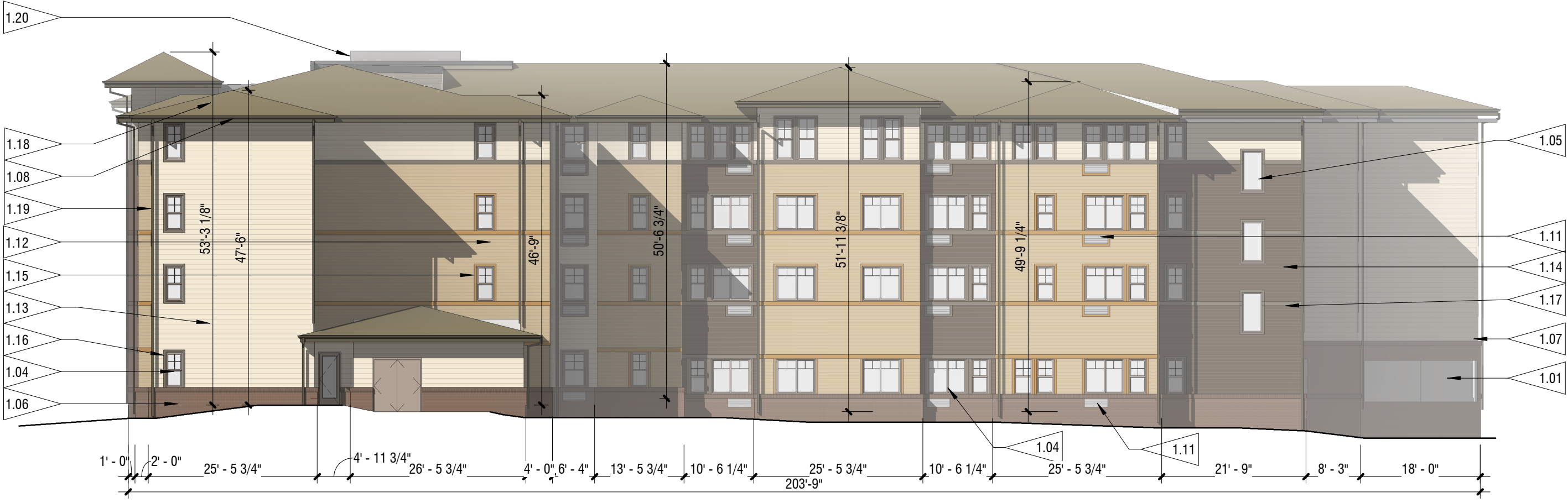
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SHEET TITLE:

BUILDING
ELEVATIONS

SITE DEVELOPMENT PLAN
LOT 3C THE MEADOWS FILING NO.19 PARCEL 2N AMENDMENT NO. 1
THE MEADOWMARK

A PORTION OF SECTION 28, TOWNSHIP 7 SOUTH, RANGE 67 WEST
TOWN OF CASTLE ROCK, COUNTY OF DOUGLAS, STATE OF COLORADO



4 NORTH ELEVATION
1/16" = 1'-0"

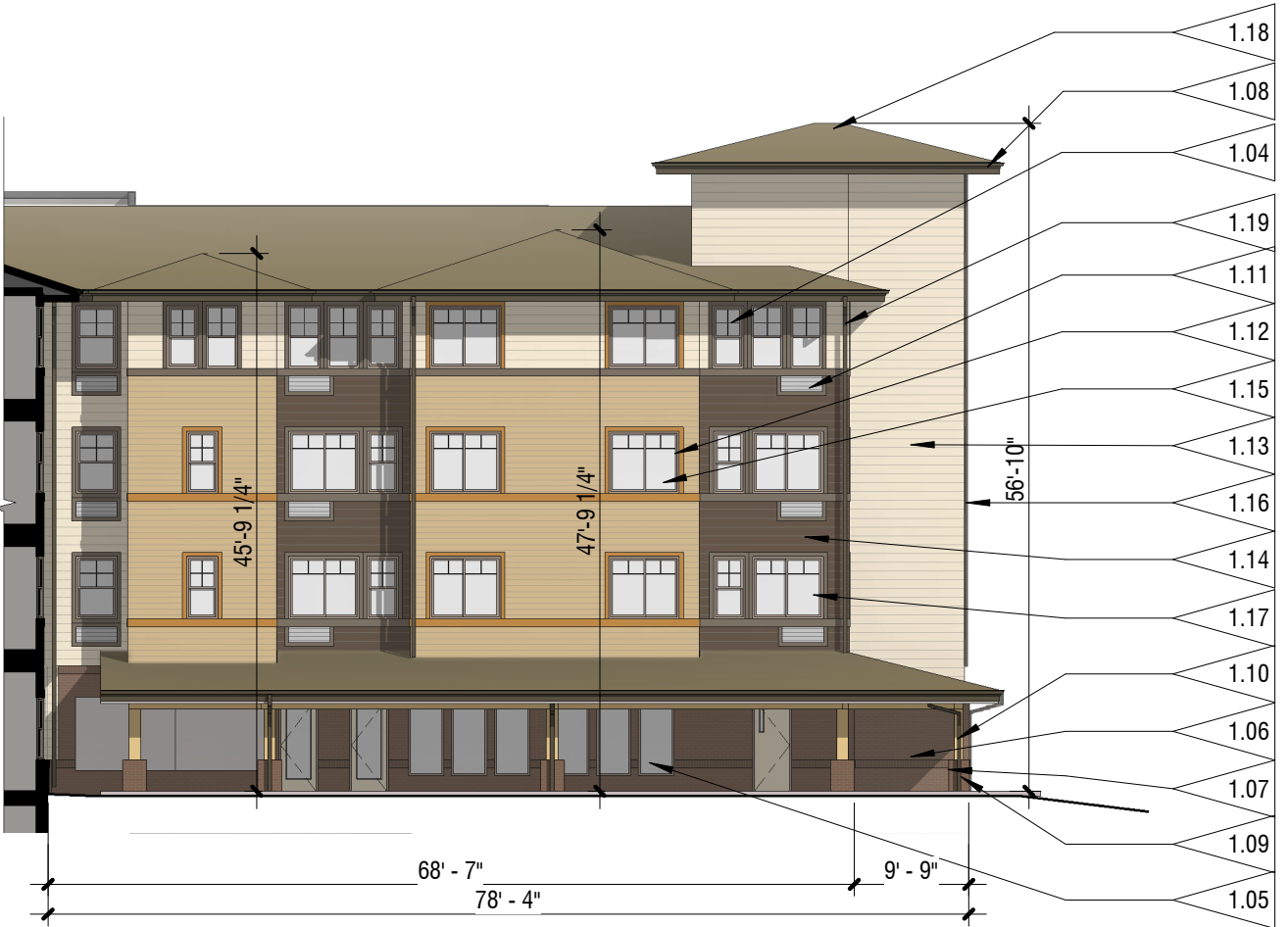


3 NORTH WING - SOUTH ELEVATION
1/16" = 1'-0"

ELEVATIONS MATERIAL LEGEND	
	MODULAR - LAKEWOOD BRICK COMPANY- EBONY SMOOTH W/ EBONY GRAIN ACCENTS.
	SIDING 1- ALLURA FIBER CEMENT TRADITIONAL LAP SIDING 6-1/4" - PRIMED FOR PAINT; SW 7682 BEES WAX. SIDING 1 TRIM - ALLURA TRIM 1" x 8" - SW 6384 CUT THE MUSTARD.
	SIDING 2- ALLURA FIBER CEMENT SMOOTH LAP SIDING 9-1/4" - PRIMED FOR PAINT; SW 5672 MORNING SUN - SIDING 2 TRIM- ALLURA TRIM 1" x 6" - SW 7026 GRIFFIN.
	SIDING 3- ALLURA FIBER CEMENT SMOOTH LAP SIDING - PRIMED FOR PAINT; SW 7027 HICKORY SMOKE - SIDING 3 TRIM- ALLURA TRIM 1" x 6" - SW 7026 GRIFFIN.
	ASPHALT SHINGLE ROOF - CERTAINTED LANDMARK SOLARIS - MOJAVE TAN

GENERAL NOTES	
GENERAL NOTES:	
1.	ALL VERTICAL DIMENSIONS TO ROOF HEIGHTS ARE FROM FINISH FLOOR ELEVATION.
2.	ALL ROOF TOP MECHANICAL EQUIPMENT WILL BE SCREEN FROM VIEW FROM RIGHT AWAY.
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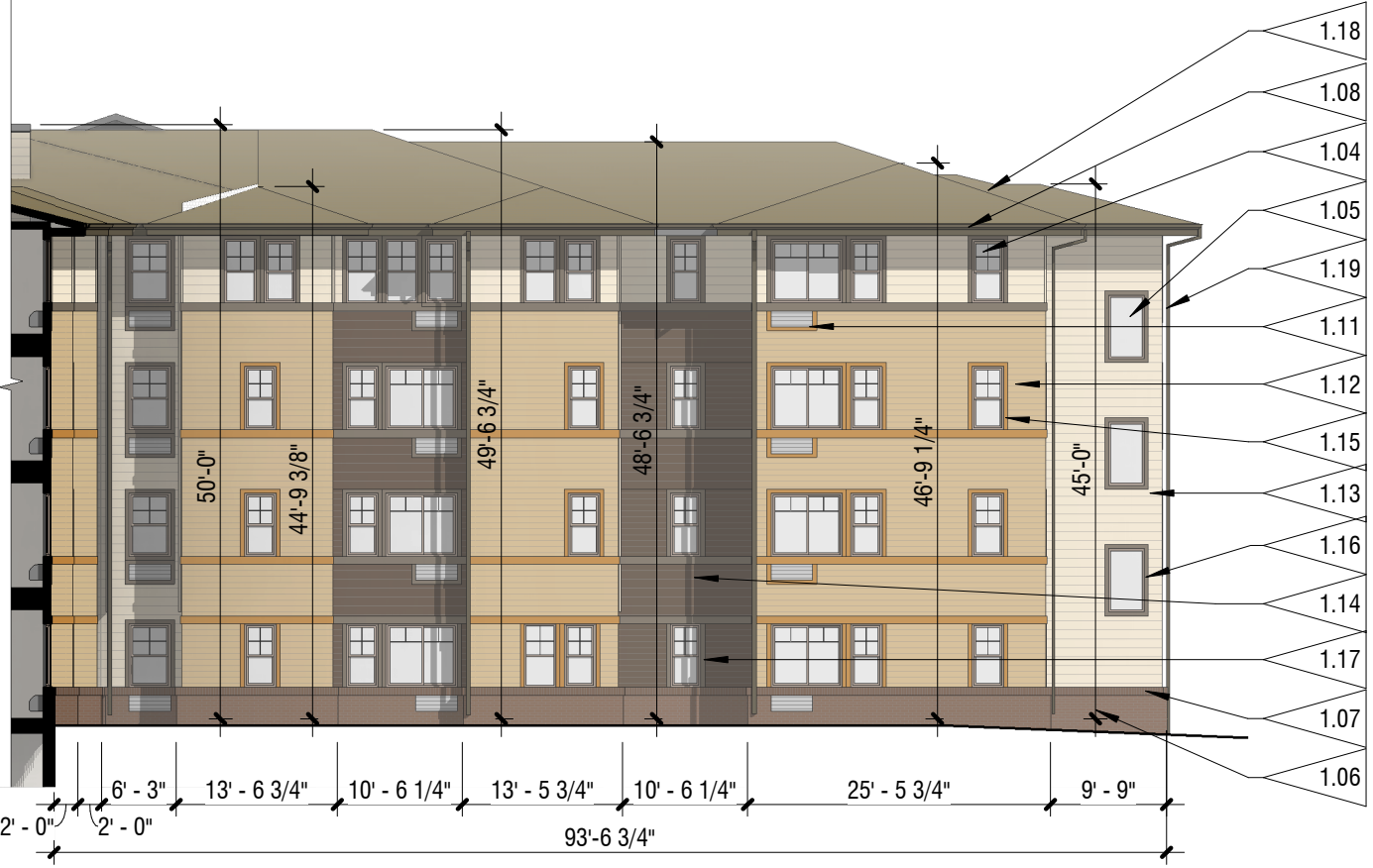
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1.03	RECESSED KNOX BOX, LOCATION TO BE COORDINATED WITH AHJ
1.04	VINYL WINDOWS TYPICAL AT UNITS, ALMOND FINISH
1.05	FIBER COMPOSITE WINDOWS TYPICAL AT PUBLIC SPACES AND AMENITIES, ALMOND FINISH
1.06	BRICK MASONRY VENEER, RE: LEGEND
1.07	BRICK ACCENT BAND
1.08	FIBER CEMENT FASCIA PAINT SW 6384, WITH PREFINISHED METAL GUTTER TO MATCH
1.09	BRICK VENEER COLUMN BASE TO MATCH BLDG BRICK, TYP ON EXTERIOR GLULAM COLUMNS
1.10	EXPOSED DOUGLAS FIR GLULAM COLUMN, SAND AND SEAL FOR NATURAL WOOD FINISH ON BRICK VENEER BASE TO MATCH BLDG BRICK
1.11	MECHANICAL PTAC EXTERIOR LOUVER, ANODIZED ALUMINUM FINISH
1.12	SIDING 1, RE: LEGEND
1.13	SIDING 2, RE: LEGEND
1.14	SIDING 3, RE: LEGEND
1.15	SIDING 1 TRIM, RE: LEGEND
1.16	SIDING 2 TRIM, RE: LEGEND
1.17	SIDING 3 TRIM, RE: LEGEND
1.18	ASPHALT SHINGLE ROOF, RE: LEGEND
1.19	DOWNSPOUT, MEDIUM BRONZE
1.20	ALL ROOF TOP MECHANICAL EQUIPMENT TO BE SCREENED FROM VIEW FROM RIGHT OF WAY, RE: LEGEND



6 CENTRAL WING - NORTH ELEVATION
1/16" = 1'-0"



5 CENTRAL WING - SOUTH ELEVATION
1/16" = 1'-0"



8 SOUTH WING - NORTH ELEVATION
1/16" = 1'-0"



7 SOUTH ELEVATION
1/16" = 1'-0"

UNIVERSITY OF COLORADO
ARCHITECTURE
301 W. 45TH AVE • DENVER, CO 80216 • 303.433.4094

PREPARED FOR:

CASTLE VIEW
OWNER LLC

LANDSCAPE
CERTIFICATION:

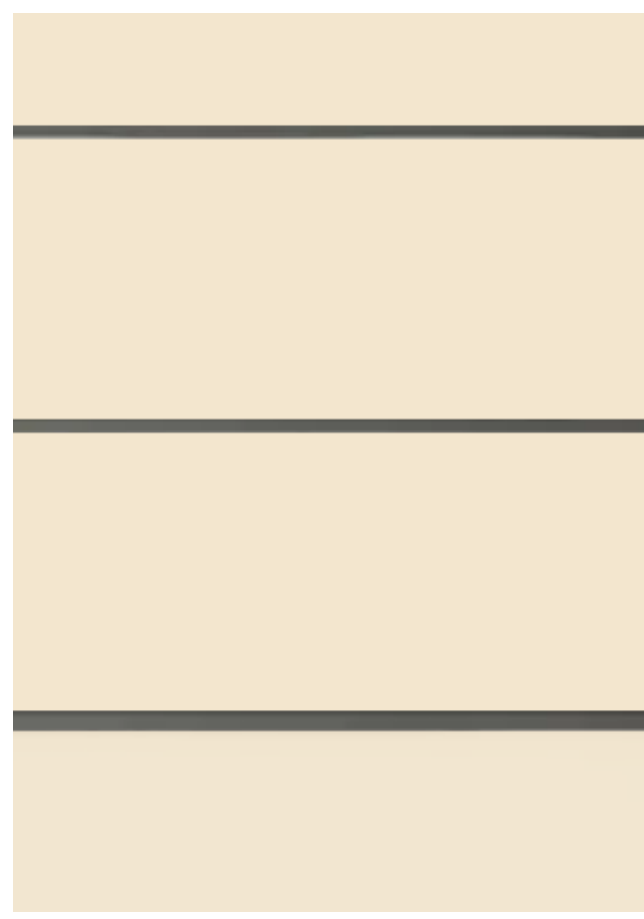
DATE:

SDP_01	05/20/2022
SDP_02	08/24/2022
SDP_03	10/28/2022
SDP_04	12/12/2022
SDP_05	12/29/2022

SHEET TITLE:

BUILDING
ELEVATIONS

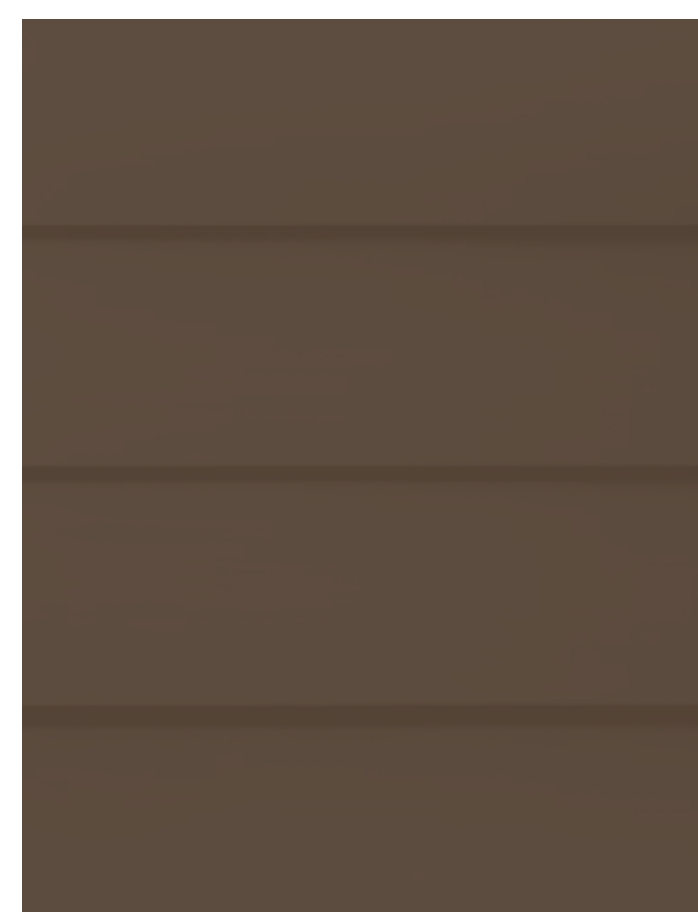
FIBER CEMENT SIDING



8" EXPOSURE
SMOOTH
MORNING SUN



5" EXPOSURE
TRADITIONAL
BEESWAX



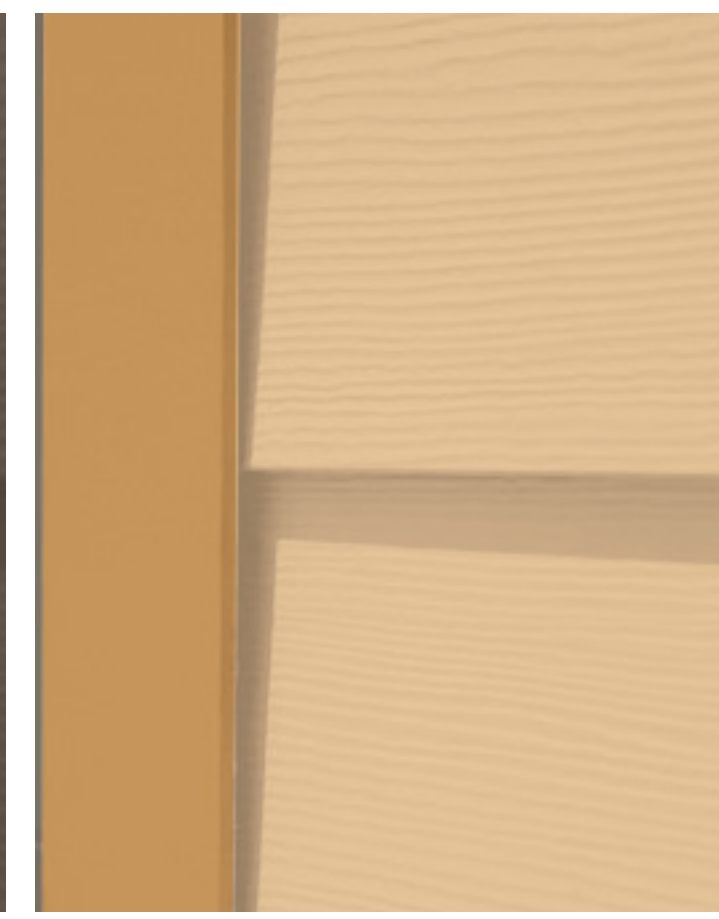
5" EXPOSURE
SMOOTH
HICKORY SMOKE



TRIM SIZE VARIES
SMOOTH
GRIFFIN



TRIM SIZE VARIES
SMOOTH
GRIFFIN



TRIM SIZE VARIES
SMOOTH
CUT THE MUSTARD



ASPHALT SHINGLE
GUTTER SYSTEM

TRIM-GRIFFIN

VINYL WINDOWS TAN
TRIM-GRIFFIN

TRIM-MUSTARD

EXPOSED GLULAM
BRICK



ROOF



ASPHALT SHINGLES
MOJAVE TAN

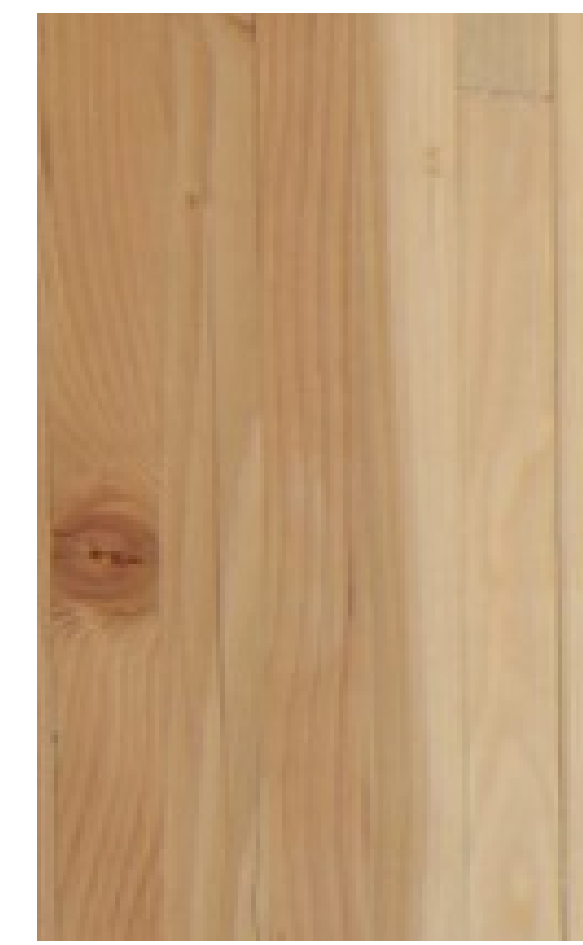


GUTTER SYSTEM
MEDIUM BRONZE

MISC.

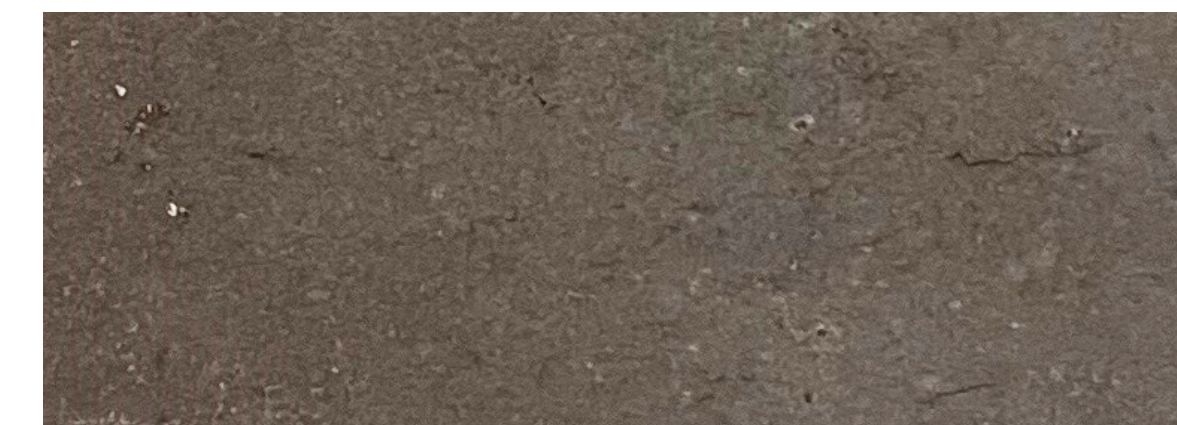


VINYL &
COMPOSITE
WINDOWS
TAN



EXPOSED GLULAM
DOUGLAS FIR

BRICK



MODULAR - EBONY SMOOTH



ACCENT BRICKS - EBONY GRAIN



FIELD REFERENCE IMAGE



AMENITY PORCH PERSPECTIVE



FRONT ENTRY PERSPECTIVE

**Neighborhood Meeting Summary – Meadows Filing 19, 5.5 acres, Site Development Plan [Senior, Affordable MF]
Neighborhood Meeting #1 – May 16 at 6 pm
Philip S. Miller Library, Hybrid (4 Public Attendees)**

Shopworks Architecture, on behalf of Ulysses Development Group, held the first neighborhood meeting to discuss a proposed Site Development Plan (SDP) for a 5.5-acre parcel located in the Meadows, north of N. Meadows Drive on Timber Mill Parkway, to be known as Castle View Apartments. The property is zoned Commercial/Office/Industrial (COI) under the Meadows Planned Development (PD), 4th Amendment, which allows senior living facilities as a use by right. The Ulysses Group is a Denver-based developer of multifamily communities nationwide.

This meeting represented the first required neighborhood meeting. The meeting was conducted in a hybrid format. The neighborhood meeting notice was mailed to all property owners within 500-feet of the project site and included a vicinity map, project narrative, and conceptual site plan. Seven community members attended the meeting; 3 in-person, 4 online.

The site plan proposes a 200-unit affordable multifamily senior housing facility. A single 4-story, 180,000 square foot building is planned, comprised of a mix of 1- and 2-bedroom units. The building would be oriented around two courtyards with gardens, outdoor grills and seating area, and crusher fine pathways. A pet park is planned in an area apart from the courtyards.

The multifamily facility will be an age-restricted, 55 years and above, wholly independent living/active adult community. No food service, medical or nursing support is proposed. Residents may arrange privately for independent caregivers, including live-in caregivers, if they so choose.

The design and development team introduced themselves, reviewed how to participate online and proceeded with their presentation. The presentation covered the proposed building and site design, the demographic this building is looking to serve, proposed resident amenities, building height, number of units, number of parking spaces, permitted uses, and proximity of the site in relationship to the rest of the Meadows neighborhood.

Applicant Representatives:

- Ahmed Abdelhameed, Ulysses Development Group
- Alisha Hammett, Shopworks Architecture
- Rebecca Greek, Shopworks Architecture
- Anna Spelke, Shopworks Architecture

Town Representatives:

- Cara Reed, Neighborhood Liaison

- Sandy Vossler, Senior Planner

Community Attendees

1. Charrie Bledsoe (in-person)
2. Richard Morton (in-person)
3. Gus (in-person)
4. Anonymous Attendee (online)
5. Patricia Riber (online)
6. Ruthjoy (online)
7. Maria Ciano (online)

Questions from the community

- Building height and proximity to existing homes south of the railroad
- Project schedule
- Size of the apartments, number of bedrooms and number of each type of unit
- How many ADA units and parking spaces are being provided?
- Resident amenities and programs
- Parking
- Noise mitigation from the railroad
- How utilities will be billed
- Laundry facilities
- LIHTC financing
- Income-qualification requirements and rent ranges
- How age restrictions are enforced
- Pets permitted on property
- Bike storage and bike paths
- Timing for construction

Items applicant will follow up on before the next neighborhood meeting: how noise mitigation from the railroad will be addressed and trail connections.

The project is located in Councilman Hollingshead's District #1.

The meeting adjourned at approximately 7 pm.

SDP Submittal Date: Early June

Attachments:

Vicinity Map
Conceptual Site Plan
Presentation PowerPoint

Link: https://crgov-my.sharepoint.com/:f:/p/svossler/Eqz5uhd6sq5Er9HNEIlbogQBH6qIfJ49f92jY_SZA7cbtg

**Neighborhood Meeting Summary – Meadows Filing 19, 5.5 acres, Site Development Plan [Senior, Affordable MF]
Neighborhood Meeting #2 – August 30, 2022 @ 6:00 p.m.
Philip S. Miller Library, Hybrid (1 Public Attendee)**

Shopworks Architecture, on behalf of Ulysses Development Group, held the first neighborhood meeting to discuss a proposed Site Development Plan (SDP) for a 5.5-acre parcel located in the Meadows, north of N. Meadows Drive on Timber Mill Parkway, to be known as Castle View Apartments. The property is zoned Commercial/Office/Industrial (COI) under the Meadows Planned Development (PD), 4th Amendment, which allows senior living facilities as a use by right. The Ulysses Group is a Denver-based developer of multifamily communities nationwide.

This meeting represented the second required neighborhood meeting. The meeting was conducted in a hybrid format, offering both in-person and virtual participation. The neighborhood meeting notice was mailed to all neighbors within 500-feet of the project site and included a vicinity map, project narrative, and a conceptual site plan. The meeting was scheduled for August 30, 2022 from 6:00 p.m. to 7:00 p.m. The following represents a summary of the neighborhood meeting.

Meeting Attendees

Applicant Representatives:

- Ahmed Abdelhameed, Ulysses Development Group
- Rebecca Greek, Shopworks Architecture
- Anna Spelke, Shopworks Architecture

Town Representatives:

- Cara Reed, Neighborhood Liaison
- Sandy Vossler, Senior Planner
- BrieAnna Simon, Senior Planner

In-person Attendees: No people attended the meeting in-person.

Online/Phone Attendees: 1 person attended the meeting virtually. See attached sign-in sheet.

- Maggie, Palace Construction

The applicant's presentation included a PowerPoint presentation, an overview of the proposed building and site design (i.e. building height, number of units, and number of parking spaces), summary of the demographic and proposed resident amenities, along with the proximity of the site in relationship to the existing residential lots. The presentation discussed follow up items from the first neighborhood meeting which are as follows:

- Railroad Noise: The proposed building is more than 200 feet way from the railroad tract. The applicant is currently conducting an acoustical study to determine impact and mitigation of the railroad noise.
- Building height: The proposed building height is consistent with the Planned Development. The closest residential lot is more than 500 feet away from the proposed building.

Attendees had the following comments and questions:

Q: When do you anticipate starting construction and how long do you anticipate the construction schedule?

A: The applicant stated they are anticipating breaking ground in early 2023 with a construction period of 18 months.

Q: Is this project financed with low-income tax credits?

A: The applicant stated this project is funded with low-income tax credits of four percent from CHFA.

Q: Has a general contractor been selected for this project?

A: The applicant stated a general contractor has been selected and provided their contact information to talk directly about that process.

The project is located in Councilman Hollingshead's District #1.

The meeting adjourned at approximately 6:25 p.m.

Attachments:

- Vicinity Map
- Applicants Meeting Summary and Sign-In Sheet
- Applicant's PowerPoint Presentation

Neighborhood Meeting Summary

Project: Meadowmark Senior Housing, Meadows Filing 19

Meeting #: 3

Date/Time: 6 p.m., Wednesday, Jan. 11, 2023

Meeting Location: Virtual

Councilmember District: Hollingshead

Meeting Adjourned: 6:21 p.m.

Applicant's Presentation:

[Meadowmark Senior Housing Presentation](#)

There was no recording made of the meeting.

Proposal: The site plan proposes a 200-unit affordable senior housing multifamily community. The community will consist of a single, 4-story building with wings designed around a central courtyard. One and two-bedroom units will be offered as a "For Lease" product. The property is within the Meadows Planned Development, Amendment 4, and is zoned to allow senior housing as a use by right. The property is located on Timber Mill Parkway, west of Castle Rock Parkway and North Meadows Drive.

Applicant Representatives:

Alisha Hammett
Ahmed Abdelhameed
Rebecca Greek
Anna Spelke

Public Attendees

Virtual (6):

Artie Lehl
Erik Johnson
Jack Thiel
Katie Barrett
Rhanisch
Ted

Town Staff Attendees:

BrieAnna Simon
Michelle Pavlou

Applicant's Presentation:

The applicant gave a powerpoint presentation showing an overview of the site development plan. It is not an assisted living facility, but senior housing. This is an active adult community targeting those over 55 years old.

Concerns presented to applicant:

- There was a comment about the chosen color palette for the development.

Applicant response: The colors are very similar to the other colors seen in the Meadows neighborhood and throughout Town.

- There was a concern about the environmental impacts from the project.

Applicant response: During the application process there have been several impact studies, which they have adapted to in their plan. They are also required to follow the National Green Building Standard (NGBS) due to the grants they have received from LIHTC. This includes low flow fixtures, water wise plantings, EV ready parking stalls and recycled building materials during construction.

MEMORANDUM

To: Alisha Kwon Hammett, Shopworks Architecture

From: Cassie Slade, PE, PTOE

Date: June 7, 2022

Project: Castle View Senior Housing – Meadows 19, Lot 2 in Castle Rock, Colorado

Subject: Traffic Conformance Memo

The Fox Tuttle Transportation Group has completed a traffic analysis for the proposed development of an affordable senior housing project in Castle Rock, Colorado. The Castle View Senior Housing project is proposing to construct 200 dwelling units within a single building. It is understood that there will be 130 one-bedroom units and 70 two-bedroom units that will be restricted by age and income.

This site is located west of N. Meadows Drive and north of the future Timber Mill Parkway as shown in **Figure 1**. A previous traffic analysis¹ for Meadows Filing No. 19 was prepared for adjustments in the anticipated land uses and the addition of a property owned by Douglas County that would increase traffic on the future Timber Mill Parkway.

The existing and future roadways and intersections have been planned or built to support The Meadows' traffic including the parcels in Filing No. 19 located along Timber Mill Parkway. The

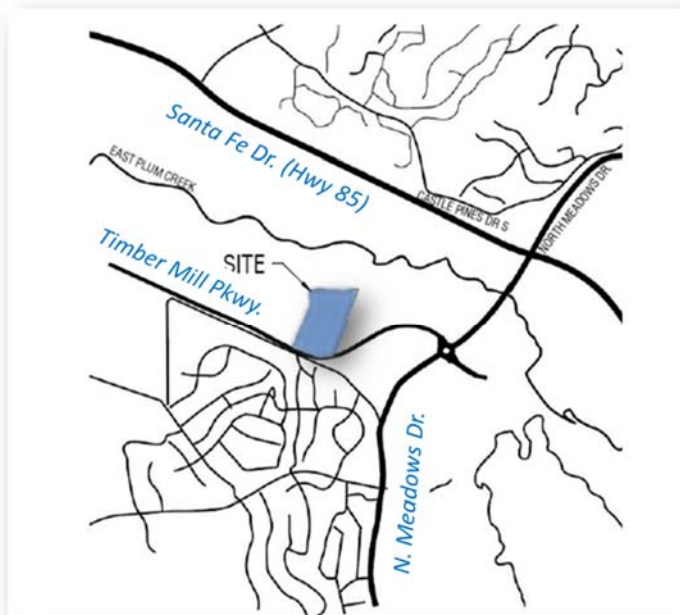


Figure 1. Vicinity Map

¹ The Meadows Filing 19 North – Timber Mill Parkway Analyses. Felsburg Holt & Ullevig. September 27, 2021.

purpose of this "traffic conformance memo" is to determine if the proposed change in senior housing type exceeds the trip generation assumptions for Lot 2 as analyzed in the previous traffic analyses and to determine if additional traffic analyses are necessary.

Comparison to the Master Traffic Study

A review of the previous analyses for The Meadows Filing No. 19 indicated the focus of the most current study was to determine if there would be impacts to the design of Timber Mill Parkway and the future intersections within The Meadows Filing No. 19 with adjustments to the land use assumptions and inclusion of a parcel owned by Douglas County. Lot 2 for the proposed Castle View Senior Housing project appears to be part of parcel's D2 and D1 as shown in the previous traffic study map and illustrated on **Figure 2** to the right.

The previous parcel D1 assumed there would be 130 senior apartments and the trips were estimated by applying the trip rates for "Continuing Care Retirement Community" (ITE #255). The previous parcel D2 assumed there would be 53,000 square foot church (ITE #560).

The proposed Castle View Senior Housing project will change the previous D1 land use from senior retirement community to affordable senior housing and the parcel lines will be adjusted slightly (now listed as Lot 2). Access will remain the same as shown in **Figure 2** and as previously evaluated. The residents of the affordable senior housing project will have two accesses on either side of the property to connect to Timber Mill Parkway.

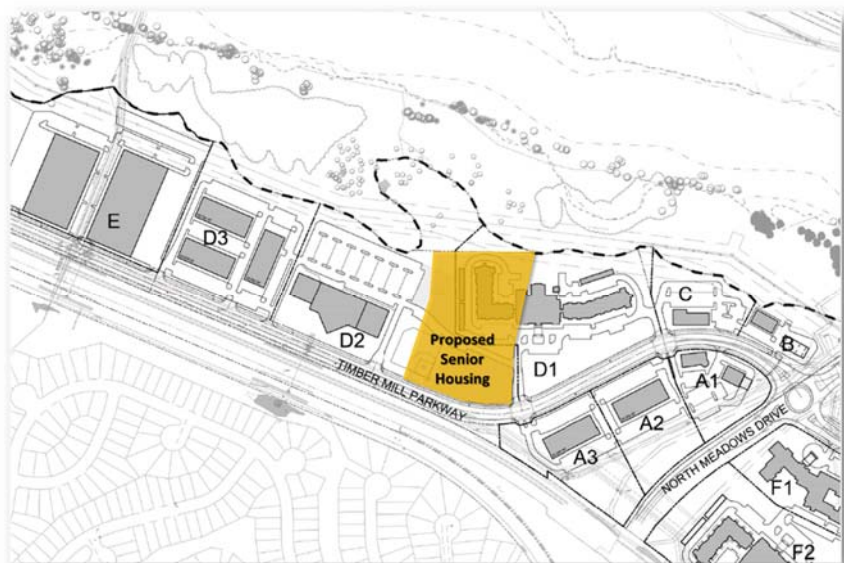


Figure 2. Proposed Project on Previous Traffic Study Parcel Map

Trip Generation

To establish the volume of trips associated with the proposed change in type of senior housing, the data contained in the Institute of Transportation Engineers' (ITE) Trip Generation Handbook and Manual and other research resources for affordable housing was applied to the most applicable land use category. It is unclear which version of the Trip Generation Handbook was utilized in previous traffic studies, however, the most current version (11th Edition, Year 2021) was utilized for this traffic conformance letter.

Previous parcel D1 assumed 130 senior "continuing care retirement" apartments would be constructed, which was estimated to generate up to 977 daily trips with 28 trips in the AM peak hour and 29 trips in the PM peak hour.

Parcel No.	Land Use	Unit	Size	Daily	AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total
A1	Retail ¹	SF	5.8 ^k	17	25	25	50	23	22	45
	Bank	SF	4.8 ^k	398	27	19	46	49	49	98
A2	Office	SF	20 ^k	223	39	7	46	4	21	25
A3	Office	SF	20 ^k	223	39	7	46	4	21	25
B	Retail ²	SF	5 ^k	3,121	102	101	203	123	123	246
C	Retail ³	SF	8.5 ^k	321	5	3	8	16	17	33
D1	Senior Apartments ⁴	DU	130	977	18	10	28	12	17	29
D2	Church	SF	53 ^k	343	11	8	19	11	13	24
D3	Light Industrial	SF	60 ^k	286	27	4	31	4	29	33
E	Light Industrial	SF	160 ^k	664	40	20	60	20	40	60
Filing 19 Subtotals				6,573	333	204	537	266	352	618
Off-Site DC Parcel	Light Industrial	SF	439.1 ^k	1,722	118	16	134	14	89	103
TOTALS				8,295	451	220	671	280	441	721
¹ Pharmacy/Drugstore with Drive-Through Window ² Convenience Market with Gasoline Pumps ³ Shopping Center (Calculated using Average Rates) ⁴ Continuing Care Retirement Community										

Figure 3. Trip Generation Table from The Meadows Filing 19 North – Timber Mill Parkway Analyses

Recently ITE added the land use category "Affordable Housing". The definition of this land use type is:

"Affordable housing includes all multifamily housing that is rented at below market rate to households that include at least one employed member. Eligibility to live in affordable housing can be a function of limited household income and resident age. Data are presented for three subcategories for this land use: (1) sites with income limitations for its tenants (denoted as income limits in the data plots), (2) sites with both minimum age thresholds and income limitations for its tenants (denoted as senior in the data plots), and (3) sites designed for and occupied by residents with special needs, such as persons with physical and mental impairments, single mothers, recovering addicts and others living in a group setting."

Since the new set of data for affordable senior housing in ITE only included three (3) sites for the AM peak hour and two (2) sites for the PM peak hour, additional data from research conducted

Castle View Senior Housing – Meadows 19, Lot 2

Traffic Conformance Memo

June 7, 2022

by the Los Angeles Department of Transportation (LADOT) was included in this analysis. The LADOT partnered with other professional engineers and students to evaluate 13 senior affordable housing to develop their local trip rate to be utilized in traffic studies. **Table 1** provides the previous trip generation estimates for parcel D1, the updated trip generation estimate for the Castle View Senior Housing (Lot 2), and the comparison of the trip volumes for weekday daily, weekday AM, and weekday PM periods. The ITE trip rates and LADOT trip rates are shown in **Table 1** and averaged to estimate the trips associated with the proposed Castle View Senior Housing.

Table 1. Trip Generation Estimate and Comparison

Land Use	Size	Unit	Average Daily New Trips				AM Peak Hour New Trips				PM Peak Hour New Trips			
			Rate	Total	In	Out	Rate	Total	In	Out	Rate	Total	In	Out
Previous Traffic Study														
D1 - Senior Apartments	130	DU		977	489	488		28	18	10		29	12	17
Proposed Senior Affordable Housing - ITE Trip Rates														
ITE #223: Affordable Housing - Seniors *	200	DU		270	135	135	0.18	36	21	15	0.09	18	11	7
LADOT: Affordable Housing - Seniors **	200	DU	1.72	344	172	172	0.12	24	9	15	0.15	30	16	14
Average of Data				307	154	153	0.12	30	15	15	0.15	24	14	11
Change from Previous Land Use Assumptions				-670	-335	-335	AM >	2	-3	5	PM >	-5	2	-7
Percent Difference				-69%			7%				-17%			

* Source: ITE Trip Generation 11th Edition, 2021. Note: 3 studies used for AM trip rates and 2 studies for PM trip rates.

** Source: City of Los Angeles Transportation Impact Study Guidelines, 2016. Note: 13 studies used trip rates.

Based on the comparison of the previous and current land plans, **it was estimated that the trips associated with the proposed 200 affordable senior units will have significantly less daily traffic and nearly the same traffic level during the AM and PM peak hours.** The AM peak hour is anticipated to have two additional trips and the PM peak hour is anticipated to have five fewer trips. Based on the available data for trip rates, the income level of senior housing impacts the amount of traffic generated by residents, which is evident in the proposed increase of dwelling units with lower income generating less trips than the previously assumed fewer market-rate senior apartments.

Conclusions

It is anticipated that the approved roadway network, intersections, and access can accommodate the proposed change to affordable senior housing. **The analysis for the proposed Castle View Senior Housing found that the previous traffic study and recommendations are still valid. Therefore, no new traffic analyses are required beyond what was already analyzed in the previous studies for The Meadows Filing No. 19 for off-site improvements.**

I hope that the contents of this memorandum are helpful to you. If you have any questions, please feel free to give me a call.

Sincerely,

FOX TUTTLE TRANSPORTATION GROUP, LLC



Cassie Slade, P.E., PTOE
Principal



WARE MALCOMB

ARCHITECTURE	CIVIL ENGINEERING
PLANNING	BRANDING
INTERIORS	BUILDING MEASUREMENT

December 9, 2022

Town of Castle Rock
100 N. Wilcox Street
Castle Rock, CO 80104
Attn: Kevin Buffington

Re: Drainage Conformance Letter
Meadows Filing No. 19, Lot 2 North Parcel D2A, Senior Housing – SDP22-0032

Dear Mr. Buffington:

This letter has been prepared in lieu of a formal drainage report as the Meadows Filing No. 19, Lot 2 North Parcel D2A, Senior Housing (site) is part of the Master Drainage study Phase III Drainage Report for The Meadows Filing No. 19 Lot 2 North (CD21-0042), prepared by Terracina Design, LLC, dated February 2022. The site project is located north of Timber Mill Pkwy and south of East Plum Creek. The site is in a portion of Section 28, Township 7 South, Range 67 West of the 6th Principal Meridian, Castle Rock, Colorado. The object of this letter is to demonstrate that the proposed development within Lot 2 North parcel D2A complies with Master Drainage study CD21-0042. We acknowledge that the Town of Castle Rock's review of this letter is only for general conformance with submittal requirements, current design criteria, and standard engineering principles and practices.

Description of Property

The proposed development includes construction of a new 200-unit affordable senior housing multifamily with associated parking lots and landscaping on an undeveloped 5.5 +/- acre site. The proposed site plan will result in a weighted imperviousness of 68%.

The site has been classified by the Natural Resources Conservation Service (NRCS) as 37.6% Bresser sandy loam (hydrologic group B), 29.2% Newlin gravelly sandy loam (hydrologic group B), 7.6% Sampson loam (hydrologic group B), and 25.6% Sandy wet alluvial land (hydrologic group D). Vegetation is light, with most of the site consisting of sparse grass cover. The NRCS web soil survey has been included in the appendix of this letter.

According to the Flood Insurance Rate Map Number 08035C0167G, dated March 16, 2016, the project site is located within zone X which is of minimal flood hazard. The FIRM Map has been included in the appendix of this letter for reference.

Master Study

According to the Master Drainage study CD21-0042, Pond A was designed for 33.4 acres which includes the 5.467 acres of the site. Pond A was designed as a Full-spectrum detention facility that includes an additional 0.5 times the 100-year detention volume as water quality capture volume. As Pond A will provide water quality and detention to the site, no on-site water quality/detention facility is required. The improvements are anticipating having no impacts on downstream conditions. The site is part of CD21-0042 Basins A6 and A7. These basins were analyzed for the design of Pond A to be 90% imperviousness and with a total runoff of 51.23 cfs and 45.76 cfs respectively.

Stormwater Quality Design Process

The four steps process of section 14.1.1 of the Town of Castle Rock Storm Drainage Design and Technical Criteria Manual (SDDTC), was considered for the design of the site.

Roof drains are disconnected and daylighting into the area around the building that includes different types of surfaces to allow infiltration before the runoff reaches the proposed storm network. In addition, as mentioned above, water capture volume and detention are being provided for the site within Pond A designed by Terracina Design, Phase III Drainage Report for The Meadows Filing No. 19 Lot 2 North (CD21-0042), dated February 2022. Also, during construction, various best management practices will be put in place to prevent sedimentation and any potential contamination within adjacent roadways, properties, and existing storm systems and natural channels.

Maintenance

The owner, successors, and heirs are responsible for all on-site private drainage facilities. Inlets should be checked routinely and cleared of debris, as necessary.

Hydrologic Criteria

In accordance with the Town of Castle Rock Storm Drainage Design and Technical Criteria Manual (SDDTC), the minor storm for the proposed development type is evaluated as the 5-year storm, and the major storm is evaluated as the 100-year storm. For this letter, the site was divided in several sub-basins which encompasses the site plus part of the proposed joint access on the east side of the site for a total of approximately 5.61 (+/-) acres with a proposed weighted imperviousness of 70%.

The design storms were found using the SDDTC Table 6-1 and have been evaluated with 1-hour point rainfall depths of 1.43 inches for the 5-year storm and 2.60 inches for the 100-year storm. These 1-hour point rainfall depths were used to determine rainfall intensity for hydrologic calculations.

The peak discharge for the storm sewer analysis was calculated using the following Rational Method formula:

$$Q = C i A$$

Where:

Q = peak discharge (cfs)

C = runoff coefficient from UDFCD manual

i = rainfall intensity (inches/hour)

A = drainage area (acres)

Runoff coefficients, or "C" values, have been calculated for the site in accordance with Mile Hight Flood District, UDFCD manual. Refer to Appendix A for the weighted "C" values used in the calculations. Using the Rational Method, the total peak rate of runoff was found to be 30.3 cfs for the major storm. As mentioned above, the master drainage study accounted for basin A6 and A7 to create 51.23 cfs and 45.76 cfs runoff, respectively. The master study also designed the storm sewer to be able to carry these mentioned flows. The proposed site is creating 30.3 cfs which is considerably less than what the master study anticipated. Therefore, the site is complying with the master drainage study, and the existing storm sewer can receive the runoff from the site to safely be conveyed to Pond A.

WARE MALCOMB

ARCHITECTURE
PLANNING
INTERIORS

CIVIL ENGINEERING
BRANDING
BUILDING MEASUREMENT

Summary

The calculations included in this letter and the following appendices analyze the storm runoff from the proposed improvements in Meadows Filing No. 19, Lot 2 North Parcel D2A, Senior Housing to demonstrate that the imperviousness and runoff for the developed parcel complies with the Master Drainage study CD21-0042.

Basin ID	Area (acres)	Imperviousness (%)	Q ₅ (cfs)	Q ₁₀₀ (cfs)
A06	9.73	90	25.54	51.23
A07	7.59	90	22.81	45.76
Site	5.61	70	12.9	30.3

Should you have any questions or comments, please feel free to contact me at (303) 561-3333.

Sincerely,

Ware Malcomb,



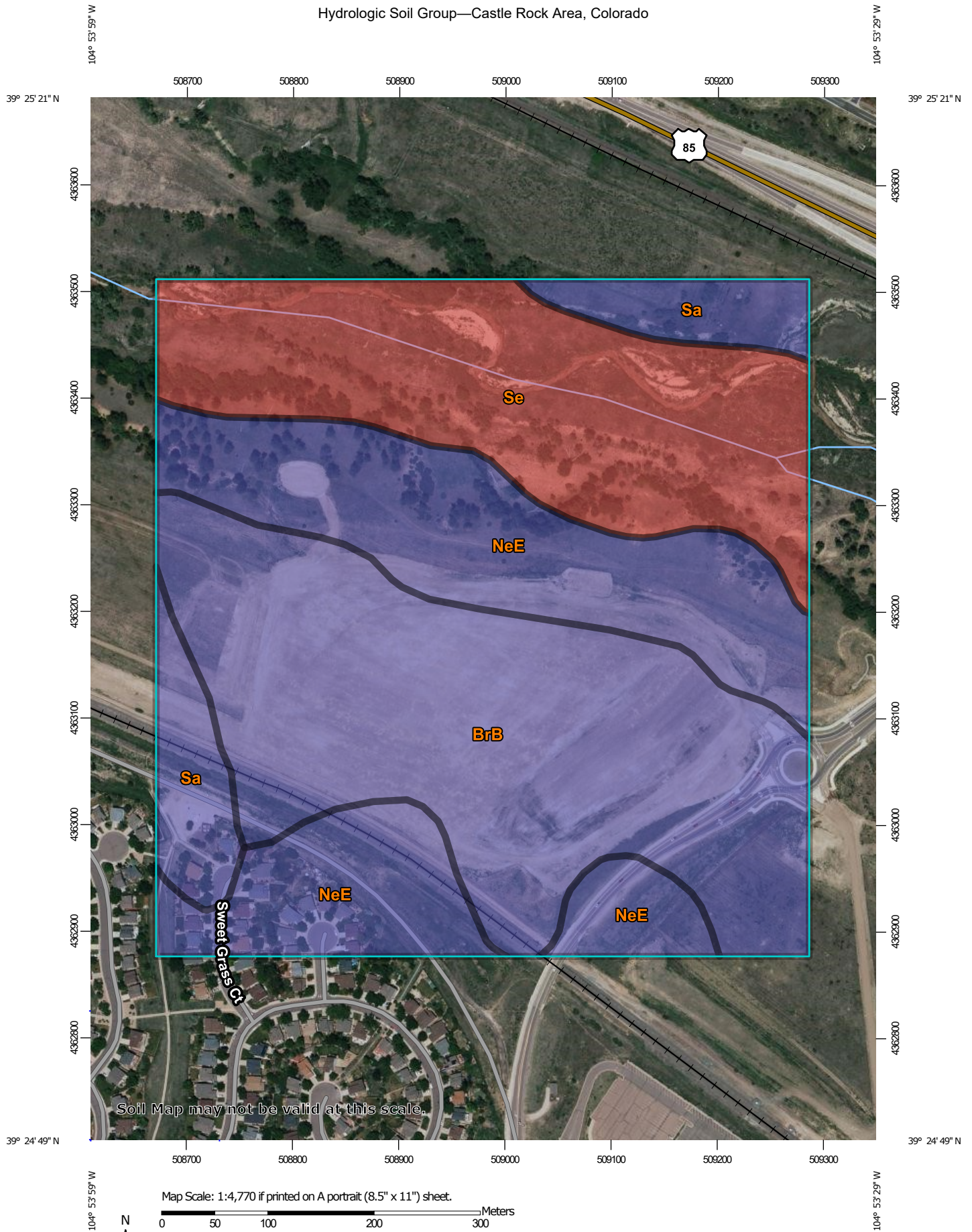
Ted Swan, PE
Director of Civil Engineering

CC: Ileana Contreras icontreras@waremalcomb.com 303.689.1518

APPENDIX A:

SOIL CLASSIFICATION
FEMA MAP

Hydrologic Soil Group—Castle Rock Area, Colorado



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 1:20,000.

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: Castle Rock Area, Colorado
 Survey Area Data: Version 14, Aug 31, 2021

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

Date(s) aerial images were photographed: Jun 9, 2021—Jun 12, 2021

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
BrB	Bresser sandy loam, cool, 1 to 3 percent slopes	B	36.4	37.6%
NeE	Newlin gravelly sandy loam, 8 to 30 percent slopes	B	28.3	29.2%
Sa	Sampson loam	B	7.4	7.6%
Se	Sandy wet alluvial land	D	24.8	25.6%
Totals for Area of Interest			96.9	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.

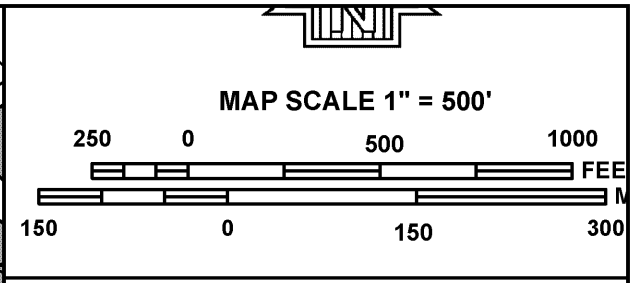
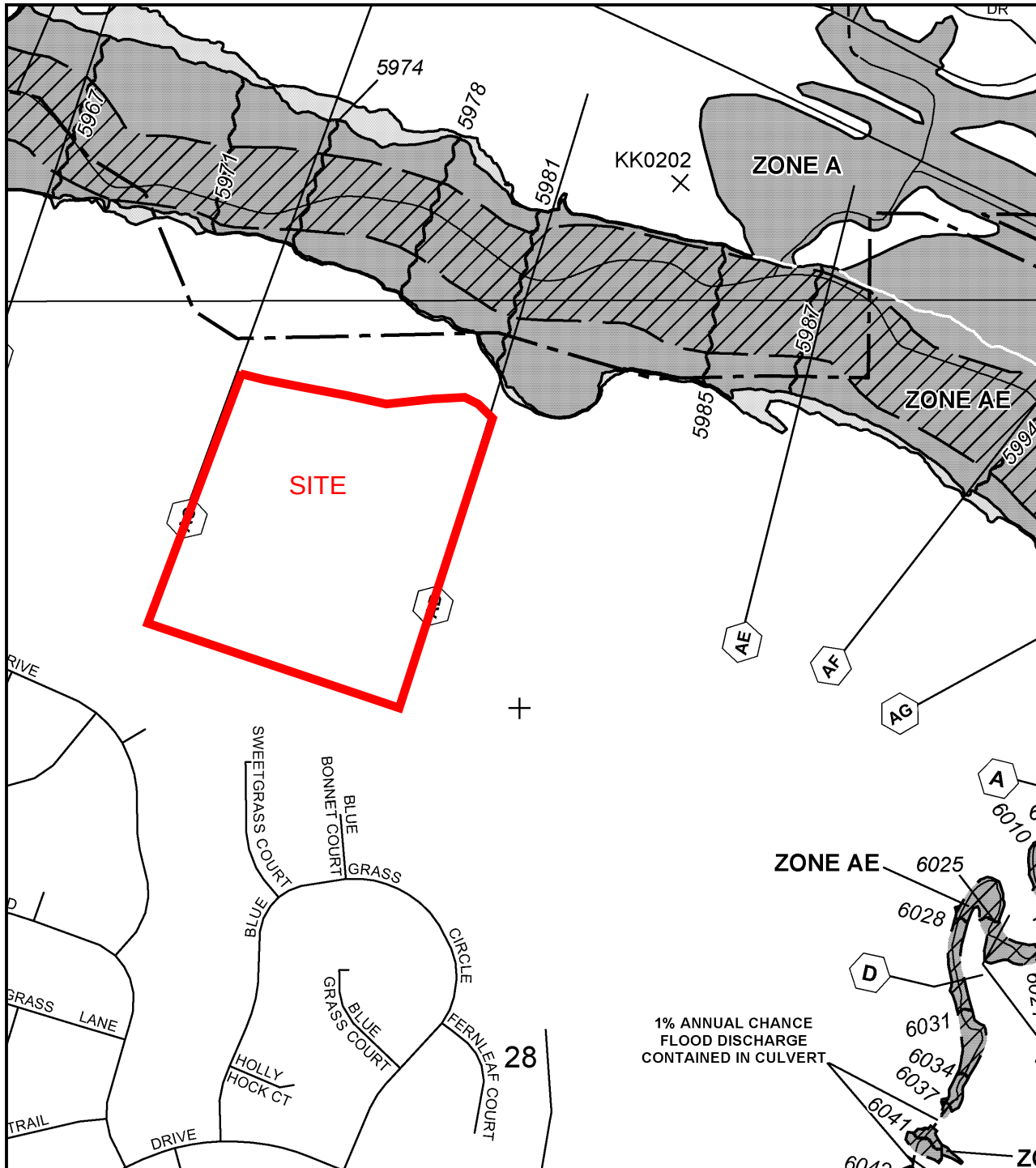
If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher



NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0167G

FIRM

FLOOD INSURANCE RATE MAP
DOUGLAS COUNTY,
COLORADO
AND INCORPORATED AREAS

PANEL 167 OF 495

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
CASTLE ROCK, TOWN OF	080050	0167	G
DOUGLAS COUNTY	080049	0167	G

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.



MAP NUMBER
08035C0167G
MAP REVISED
MARCH 16, 2016

Federal Emergency Management Agency

This is an official FIRMette showing a portion of the above-referenced flood map created from the MSC FIRMette Web tool. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For additional information about how to make sure the map is current, please see the Flood Hazard Mapping Updates Overview Fact Sheet available on the FEMA Flood Map Service Center home page at <https://msc.fema.gov>.

APPENDIX B:

HYDROLOGY CALCULATIONS
HYDRAULIC CALCULATIONS

WARE MALCOMB

ARCHITECTURE | PLANNING | INTERIORS

BRANDING | CIVIL ENGINEERING

PROJECT: The Meadows Lot 2N D2A

JOB NO.: DCS22-4026

CALC. BY: ICA

DATE: 8/30/2022

= FORMULA CELLS

= USER INPUT CELLS

Project Location

User Input

IDF Rainfall Data

T _d	P ₁ : 1-hour Rainfall Depths (inches)	
	Minor Storm	Major Storm
	5-Year	100-Year
Minutes	1.43	2.60
5	4.85	8.82
10	3.87	7.03
20	2.81	5.11
30	2.24	4.08
40	1.88	3.42
50	1.63	2.97
60	1.45	2.63
120	0.89	1.62

Equation 5-1 $I = (28.5 * P_1) / (10 + T_d)^{0.786}$

I = rainfall intensity (inches per hour)

P₁ = 1-hour point rainfall depth (inches)

T_d = storm duration (minutes)

Reference:

1) Urban Drainage and Flood Control District - Urban Storm Drainage Criteria Manual Volume 1, 2017

2) NOAA Atlas 14, Volume 8, Version 2

http://hdsc.nws.noaa.gov/hdsc/pfds/pfds_map_cont.html?bkmrk=co

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Road	100%	Land Use 5	0%
Roof	90%	Land Use 6	0%
Paved	100%	Land Use 7	0%
Drive and Walks	90%	Land Use 8	0%
Lawns	2%		

- = FORMULA CELLS
- = USER INPUT CELLS

[illegible]

WARE MALCOMB

ARCHITECTURE | PLANNING | INTERIORS

BRANDING | CIVIL ENGINEERING

Calculated By: ICA

Date: 10/13/2022

STANDARD FORM SF-2 TIME OF CONCENTRATION SUMMARY

Project: The Meadows Lot 2N D2A
Job No.: DCS22-4026
Checked By: DFA

SUB-BASIN DATA				INITIAL/OVERLAND TIME (t _i)			TRAVEL TIME (t _t)					t _c CHECK (URBANIZED BASINS)				FINAL t _c	REMARKS
Basin	i	C _s	AREA	LENGTH	SLOPE	t _i	LENGTH		SLOPE	VEL.	t _t	COMP.	L _t	S _t	tc (Equation 6-5)		
(1)	(2)	(3)	Ac (4)	Ft (5)	% (6)	Min (7)	Ft (8)	Cv	% (9)	FPS (10)	Min (11)	t _c (12)	Ft (13)	% (14)	Min (15)	Min (16)	
A0	0.60	0.49	0.84	91	3.8	6.73	174	20	1.1	2.09	1.38	8.1	174	1.09	17.4	8.12	
A1	0.78	0.65	0.32	103	6.8	4.35	72	20	2.5	3.18	0.38	4.7	72	2.52	13.2	5.00	
A2	0.83	0.71	0.28	94	2.0	5.47	86	20	1.1	2.1	0.7	6.2	86	1.12	12.5	6.15	
A3	0.86	0.73	0.84	73	5.4	3.23	542	20	2.1	2.9	3.2	6.4	542	2.05	14.3	6.39	
OS1	1.00	0.86	0.14	43	5.9	1.58	304	20	3.8	3.9	1.3	2.9	304	3.75	10.1	5.00	
B1	0.47	0.38	0.11	56	2.0	7.70	68	15	2.0	2.1	0.5	8.2	68	2.01	18.5	8.24	
B2	0.53	0.43	0.44	95	2.0	9.39	41	15	2.9	2.6	0.3	9.7	41	2.93	17.3	9.65	
B3	0.46	0.37	0.09	40	2.0	6.69	14	15	3.1	2.6	0.1	6.8	14	3.06	18.4	6.78	
B4	0.89	0.76	0.83	72	3.2	3.57	375	20	2.0	2.8	2.2	5.8	375	2.03	12.9	5.76	
B5	0.42	0.34	0.46	32	2.0	6.22	33	15	2.0	2.1	0.3	6.5	33	2.00	19.1	6.48	
B6	0.66	0.55	1.27	160	3.3	8.51	90	20	1.4	2.4	0.6	9.1	90	1.40	15.5	9.15	

Equation 6-3

$$t_i = ((0.395(1.1 - C_s) \sqrt{L}) / (S_o^{0.33}))$$

Equation 6-5

$$t_c = (26 - 17i) + (L_t / (60(14i + 9) \sqrt{S_o}))$$

= FORMULA CELLS

= USER INPUT CELLS

NRCS Conveyance Factor K Table - Cv Value	
Heavy Meadow	2.5
Tillage/Field	5
Short Pasture and Lawns	7
Nearly Bare Ground	10
Grassed Waterway	15
Paved Areas and Shallow Paved Swales	20

Calculated By:	ICA
Date:	10/13/2022
Checked By:	DFA
5-Year	
1-hour rainfall=	1.43

STANDARD FORM SF-3

STORM DRAINAGE SYSTEM DESIGN (RATIONAL METHOD PROCEDURE)

Project: The Meadows Lot 2N D2A
Job No.: DCS22-4026
Design Storm: 5-Year

 = FORMULA CELLS
 = USER INPUT CELLS

[illegible]

Calculated By: ICA
 Date: 10/13/2022
 Checked By: DFA
 100-Year
 1-hour rainfall= 2.60

STANDARD FORM SF-3
 STORM DRAINAGE SYSTEM DESIGN
 (RATIONAL METHOD PROCEDURE)

Project: The Meadows Lot 2N D2A
 Job No.: DCS22-4026
 Design Storm: 100-Year

= FORMULA CELLS
 = USER INPUT CELLS

BASIN	DIRECT RUNOFF								TOTAL RUNOFF				STREET		PIPE			LENGTH (FT)	VELOCITY (FPS)	t _r (MIN)	REMARKS
	DESIGN POINT	AREA DESIGN	AREA (AC)	RUNOFF COEFF	t _c (MIN)	C * A (AC)	I (IN/HR)	Q (CFS)	t _c (MIN)	S (C * A) (CA)	I (IN/HR)	Q (CFS)	SLOPE (%)	STREET FLOW	DESIGN FLOW (CFS)	SLOPE (%)	PIPE DIAM. (IN.)				
	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)
A0	0		0.84	0.71	8.1	0.60	7.60	4.5													
A1	1		0.32	0.79	5.0	0.25	8.82	2.2													
	2								8.1	0.8	7.60	6.4									
A2	3		0.28	0.82	6.2	0.23	8.32	1.9													
	4								8.1	1.1	7.60	8.2									
OS1	5		0.14	0.90	5.0	0.12	8.82	1.1													
A3	6		0.84	0.83	6.4	0.70	8.23	5.8	6.4	0.8	8.23	6.8									
	7								8.1	1.9	7.60	14.4									
	8								8.1	1.9	7.60	14.4									
B1	9		0.11	0.65	8.2	0.07	7.56	0.5													
B2	10		0.44	0.67	9.7	0.30	7.13	2.1													
B3	11		0.09	0.64	6.8	0.06	8.07	0.4	9.7	0.4	7.13	2.5									
	12								9.7	0.4	7.13	3.0									
B4	13		0.83	0.84	5.8	0.70	8.48	5.9													
	14								9.7	1.1	7.13	8.0									
B5	15		0.46	0.62	6.5	0.29	8.19	2.4													
	16								9.7	1.4	7.13	10.1									
B6	17		1.27	0.74	9.1	0.93	7.28	6.8	9.7	2.3	7.13	16.7									
	18								9.7	4.2	7.13	30.3									

PROJECT: The Meadows Lot 2N D2A
 JOB NO.: DCS22-4026
 CALC. BY: ICA
 DATE: 10/13/2022

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RUNOFF SUMMARY						
BASIN LABEL	DESIGN POINT	AREA	LOCAL (CFS)		ACCUMULATIVE (CFS)	
			Q5	Q100	Q5	Q100
A0	0	0.84	1.74	4.53		
A1	1	0.32	1.00	2.21		
	2				2.6	6.4
A2	3	0.28	0.91	1.92		
	4				3.4	8.2
OS1	5	0.14	0.57	1.07		
A3	6	0.84	2.79	5.76	3.3	6.8
	7				6.5	14.4
	8				6.5	14.4
B1	9	0.11	0.17	0.52		
B2	10	0.44	0.74	2.13		
B3	11	0.09	0.14	0.44	0.9	2.5
	12				1.0	3.0
B4	13	0.83	2.93	5.94		
	14				3.5	8.0
B5	15	0.46	0.70	2.35		
	16				4.1	10.1
B6	17	1.27	2.78	6.81	6.8	16.7
	18				12.9	30.3

 = FORMULA CELLS
 = USER INPUT CELLS

INLET MANAGEMENT

Worksheet Protected

INLET NAME	SD-INLET-A6.1 - DP1	SD-INLET-A5.1 - DP3	SD-INLET-A3.1 - DP6
Site Type (Urban or Rural)	URBAN	URBAN	URBAN
Inlet Application (Street or Area)	STREET	STREET	STREET
Hydraulic Condition	In Sump	In Sump	In Sump
Inlet Type	Denver No. 16 Combination	Denver No. 16 Combination	Denver No. 16 Combination

USER-DEFINED INPUT

User-Defined Design Flows			
Minor Q_{Known} (cfs)	1.0	0.9	3.3
Major Q_{Known} (cfs)	2.2	1.9	6.8

Bypass (Carry-Over) Flow from Upstream			
Receive Bypass Flow from:	No Bypass Flow Received	No Bypass Flow Received	No Bypass Flow Received
Minor Bypass Flow Received, Q_b (cfs)	0.0	0.0	0.0
Major Bypass Flow Received, Q_b (cfs)	0.0	0.0	0.0

Watershed Characteristics			
Subcatchment Area (acres)			
Percent Impervious			
NRCS Soil Type			

Watershed Profile			
Overland Slope (ft/ft)			
Overland Length (ft)			
Channel Slope (ft/ft)			
Channel Length (ft)			

Minor Storm Rainfall Input			
Design Storm Return Period, T_r (years)			
One-Hour Precipitation, P_1 (inches)			

Major Storm Rainfall Input			
Design Storm Return Period, T_r (years)			
One-Hour Precipitation, P_1 (inches)			

CALCULATED OUTPUT

Minor Total Design Peak Flow, Q (cfs)	1.0	0.9	3.3
Major Total Design Peak Flow, Q (cfs)	2.2	1.9	6.8
Minor Flow Bypassed Downstream, Q_b (cfs)	N/A	N/A	N/A
Major Flow Bypassed Downstream, Q_b (cfs)	N/A	N/A	N/A

INLET MANAGEMENT

Worksheet Protected

INLET NAME	SD-INLET-B5.1 - DP13	SD-INLET-B2.1 - DP17	SD-INLET-A8 - DP0
Site Type (Urban or Rural)	URBAN	URBAN	URBAN
Inlet Application (Street or Area)	STREET	STREET	STREET
Hydraulic Condition	In Sump	In Sump	In Sump
Inlet Type	Denver No. 16 Combination	Denver No. 16 Combination	Denver No. 16 Combination

USER-DEFINED INPUT**User-Defined Design Flows**

Minor Q_{known} (cfs)	2.9	2.8	1.7
Major Q_{known} (cfs)	5.9	6.8	4.5

Bypass (Carry-Over) Flow from Upstream

Receive Bypass Flow from:	No Bypass Flow Received	No Bypass Flow Received	No Bypass Flow Received
Minor Bypass Flow Received, Q_b (cfs)	0.0	0.0	0.0
Major Bypass Flow Received, Q_b (cfs)	0.0	0.0	0.0

Watershed Characteristics

Subcatchment Area (acres)			
Percent Impervious			
NRCS Soil Type			

Watershed Profile

Overland Slope (ft/ft)			
Overland Length (ft)			
Channel Slope (ft/ft)			
Channel Length (ft)			

Minor Storm Rainfall Input

Design Storm Return Period, T_r (years)			
One-Hour Precipitation, P_1 (inches)			

Major Storm Rainfall Input

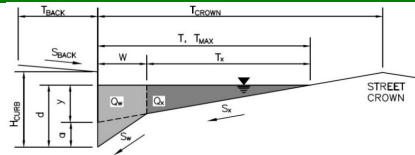
Design Storm Return Period, T_r (years)			
One-Hour Precipitation, P_1 (inches)			

CALCULATED OUTPUT

Minor Total Design Peak Flow, Q (cfs)	2.9	2.8	1.7
Major Total Design Peak Flow, Q (cfs)	5.9	6.8	4.5
Minor Flow Bypassed Downstream, Q_b (cfs)	N/A	N/A	N/A
Major Flow Bypassed Downstream, Q_b (cfs)	N/A	N/A	N/A

ALLOWABLE CAPACITY FOR ONE-HALF OF STREET (Minor & Major Storm)

(Based on Regulated Criteria for Maximum Allowable Flow Depth and Spread)

Project: **Castle View Apartments**Inlet ID: **SD-INLET-A8 - DPO****Gutter Geometry:**

Maximum Allowable Width for Spread Behind Curb

Side Slope Behind Curb (leave blank for no conveyance credit behind curb)

Manning's Roughness Behind Curb (typically between 0.012 and 0.020)

Height of Curb at Gutter Flow Line

Distance from Curb Face to Street Crown

Gutter Width

Street Transverse Slope

Gutter Cross Slope (typically 2 inches over 24 inches or 0.083 ft/ft)

Street Longitudinal Slope - Enter 0 for sump condition

Manning's Roughness for Street Section (typically between 0.012 and 0.020)

T_{BACK}	=	15.0	ft
S_{BACK}	=	0.020	ft/ft
n_{BACK}	=	0.013	

H_{CURB}	=	6.00	inches
T_{CROWN}	=	62.0	ft
W	=	2.00	ft
S_X	=	0.043	ft/ft
S_W	=	0.083	ft/ft
S_O	=	0.000	ft/ft
n_{STREET}	=	0.013	

Max. Allowable Spread for Minor & Major Storm

Max. Allowable Depth at Gutter Flowline for Minor & Major Storm

Check boxes are not applicable in SUMP conditions

	Minor Storm	Major Storm	
T_{MAX}	62.0	62.0	ft
d_{MAX}	6.0	12.0	inches

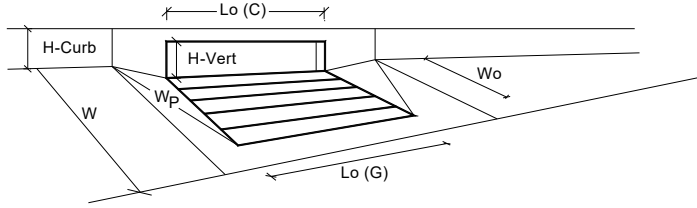
MINOR STORM Allowable Capacity is based on Depth Criterion

MAJOR STORM Allowable Capacity is based on Depth Criterion

	Minor Storm	Major Storm	
Q_{allow}	SUMP	SUMP	cfs

INLET IN A SUMP OR SAG LOCATION

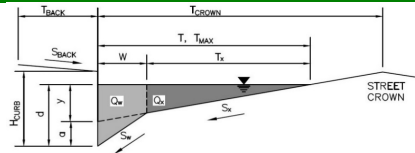
MHFD-Inlet, Version 5.01 (April 2021)



Design Information (Input)		MINOR		MAJOR	
Type of Inlet	Denver No. 16 Combination				
Local Depression (additional to continuous gutter depression 'a' from above)		a _{local} =	2.00	2.00	inches
Number of Unit Inlets (Grate or Curb Opening)		No =	1	1	
Water Depth at Flowline (outside of local depression)		Ponding Depth =	6.0	12.0	inches
Grate Information		☐ Override Depths			
Length of a Unit Grate		L _o (G) =	3.00	3.00	feet
Width of a Unit Grate		W _o =	1.73	1.73	feet
Area Opening Ratio for a Grate (typical values 0.15-0.90)		A _{ratio} =	0.31	0.31	
Clogging Factor for a Single Grate (typical value 0.50 - 0.70)		C _f (G) =	0.50	0.50	
Grate Weir Coefficient (typical value 2.15 - 3.60)		C _w (G) =	3.60	3.60	
Grate Orifice Coefficient (typical value 0.60 - 0.80)		C _o (G) =	0.60	0.60	
Curb Opening Information					
Length of a Unit Curb Opening		L _o (C) =	3.00	3.00	feet
Height of Vertical Curb Opening in Inches		H _{vert} =	6.50	6.50	inches
Height of Curb Orifice Throat in Inches		H _{throat} =	5.25	5.25	inches
Angle of Throat (see USDCM Figure ST-5)		Theta =	0.00	0.00	degrees
Side Width for Depression Pan (typically the gutter width of 2 feet)		W _p =	2.00	2.00	feet
Clogging Factor for a Single Curb Opening (typical value 0.10)		C _f (C) =	0.10	0.10	
Curb Opening Weir Coefficient (typical value 2.3-3.7)		C _w (C) =	3.70	3.70	
Curb Opening Orifice Coefficient (typical value 0.60 - 0.70)		C _o (C) =	0.66	0.66	
Grate Flow Analysis (Calculated)					
Clogging Coefficient for Multiple Units		Coef =	1.00	1.00	
Clogging Factor for Multiple Units		Clog =	0.50	0.50	
Grate Capacity as a Weir (based on Modified HEC22 Method)					
Interception without Clogging		Q _{wi} =	6.0	17.6	cfs
Interception with Clogging		Q _{wc} =	3.0	8.8	cfs
Grate Capacity as a Orifice (based on Modified HEC22 Method)					
Interception without Clogging		Q _{oi} =	5.6	7.8	cfs
Interception with Clogging		Q _{oc} =	2.8	3.9	cfs
Grate Capacity as Mixed Flow					
Interception without Clogging		Q _{mi} =	5.2	10.6	cfs
Interception with Clogging		Q _{mc} =	2.6	5.3	cfs
Resulting Grate Capacity (assumes clogged condition)		Q_{Grate} =	2.6	3.9	cfs
Curb Opening Flow Analysis (Calculated)					
Clogging Coefficient for Multiple Units		Coef =	1.00	1.00	
Clogging Factor for Multiple Units		Clog =	0.17	0.17	
Curb Opening as a Weir (based on Modified HEC22 Method)					
Interception without Clogging		Q _{wi} =	2.0	8.5	cfs
Interception with Clogging		Q _{wc} =	1.7	7.0	cfs
Curb Opening as an Orifice (based on Modified HEC22 Method)					
Interception without Clogging		Q _{oi} =	5.7	7.5	cfs
Interception with Clogging		Q _{oc} =	4.7	6.3	cfs
Curb Opening Capacity as Mixed Flow					
Interception without Clogging		Q _{mi} =	2.9	6.9	cfs
Interception with Clogging		Q _{mc} =	2.4	5.7	cfs
Resulting Curb Opening Capacity (assumes clogged condition)		Q_{Curb} =	1.7	5.7	cfs
Resultant Street Conditions					
Total Inlet Length		L =	3.00	3.00	feet
Resultant Street Flow Spread (based on street geometry from above)		T =	9.8	21.4	ft
Resultant Flow Depth at Street Crown		d _{CROWN} =	0.0	0.0	inches
Low Head Performance Reduction (Calculated)					
Depth for Grate Midwidth		d _{Grate} =	0.523	1.023	ft
Depth for Curb Opening Weir Equation		d _{Curb} =	0.33	0.83	ft
Combination Inlet Performance Reduction Factor for Long Inlets		RF _{Combination} =	0.94	1.00	
Curb Opening Performance Reduction Factor for Long Inlets		RF _{Curb} =	1.00	1.00	
Grated Inlet Performance Reduction Factor for Long Inlets		RF _{Grate} =	0.94	1.00	
Total Inlet Interception Capacity (assumes clogged condition)					
		Q_s =	3.9	8.7	cfs
Inlet Capacity IS GOOD for Minor and Major Storms(>Q PEAK)		Q_{PEAK REQUIRED} =	1.7	4.5	cfs

ALLOWABLE CAPACITY FOR ONE-HALF OF STREET (Minor & Major Storm)

(Based on Regulated Criteria for Maximum Allowable Flow Depth and Spread)

Project: **Castle View Apartments**Inlet ID: **SD-INLET-A6.1 - DP1****Gutter Geometry:**

Maximum Allowable Width for Spread Behind Curb

Side Slope Behind Curb (leave blank for no conveyance credit behind curb)

Manning's Roughness Behind Curb (typically between 0.012 and 0.020)

Height of Curb at Gutter Flow Line

Distance from Curb Face to Street Crown

Gutter Width

Street Transverse Slope

Gutter Cross Slope (typically 2 inches over 24 inches or 0.083 ft/ft)

Street Longitudinal Slope - Enter 0 for sump condition

Manning's Roughness for Street Section (typically between 0.012 and 0.020)

T_{BACK}	=	15.0	ft
S_{BACK}	=	0.020	ft/ft
n_{BACK}	=	0.013	

H_{CURB}	=	6.00	inches
T_{CROWN}	=	62.0	ft
W	=	2.00	ft
S_X	=	0.043	ft/ft
S_W	=	0.083	ft/ft
S_O	=	0.000	ft/ft
n_{STREET}	=	0.013	

Max. Allowable Spread for Minor & Major Storm

Max. Allowable Depth at Gutter Flowline for Minor & Major Storm

Check boxes are not applicable in SUMP conditions

	Minor Storm	Major Storm	
T_{MAX}	62.0	62.0	ft
d_{MAX}	6.0	12.0	inches

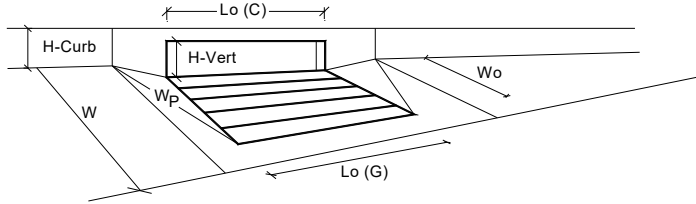
MINOR STORM Allowable Capacity is based on Depth Criterion

MAJOR STORM Allowable Capacity is based on Depth Criterion

	Minor Storm	Major Storm	
Q_{allow}	SUMP	SUMP	cfs

INLET IN A SUMP OR SAG LOCATION

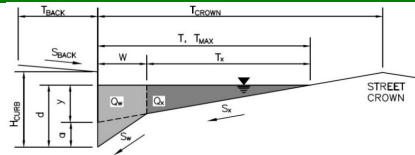
MHFD-Inlet, Version 5.01 (April 2021)



Design Information (Input)		MINOR		MAJOR	
Type of Inlet	Denver No. 16 Combination				
Local Depression (additional to continuous gutter depression 'a' from above)					
Number of Unit Inlets (Grate or Curb Opening)					
Water Depth at Flowline (outside of local depression)					
Grate Information					
Length of a Unit Grate					
Width of a Unit Grate					
Area Opening Ratio for a Grate (typical values 0.15-0.90)					
Clogging Factor for a Single Grate (typical value 0.50 - 0.70)					
Grate Weir Coefficient (typical value 2.15 - 3.60)					
Grate Orifice Coefficient (typical value 0.60 - 0.80)					
Curb Opening Information					
Length of a Unit Curb Opening					
Height of Vertical Curb Opening in Inches					
Height of Curb Orifice Throat in Inches					
Angle of Throat (see USDCM Figure ST-5)					
Side Width for Depression Pan (typically the gutter width of 2 feet)					
Clogging Factor for a Single Curb Opening (typical value 0.10)					
Curb Opening Weir Coefficient (typical value 2.3-3.7)					
Curb Opening Orifice Coefficient (typical value 0.60 - 0.70)					
Grate Flow Analysis (Calculated)					
Clogging Coefficient for Multiple Units					
Clogging Factor for Multiple Units					
Grate Capacity as a Weir (based on Modified HEC22 Method)					
Interception without Clogging					
Interception with Clogging					
Grate Capacity as a Orifice (based on Modified HEC22 Method)					
Interception without Clogging					
Interception with Clogging					
Grate Capacity as Mixed Flow					
Interception without Clogging					
Interception with Clogging					
Resulting Grate Capacity (assumes clogged condition)					
Curb Opening Flow Analysis (Calculated)					
Clogging Coefficient for Multiple Units					
Clogging Factor for Multiple Units					
Curb Opening as a Weir (based on Modified HEC22 Method)					
Interception without Clogging					
Interception with Clogging					
Curb Opening as an Orifice (based on Modified HEC22 Method)					
Interception without Clogging					
Interception with Clogging					
Curb Opening Capacity as Mixed Flow					
Interception without Clogging					
Interception with Clogging					
Resulting Curb Opening Capacity (assumes clogged condition)					
Resultant Street Conditions					
Total Inlet Length					
Resultant Street Flow Spread (based on street geometry from above)					
Resultant Flow Depth at Street Crown					
Low Head Performance Reduction (Calculated)					
Depth for Grate Midwidth					
Depth for Curb Opening Weir Equation					
Combination Inlet Performance Reduction Factor for Long Inlets					
Curb Opening Performance Reduction Factor for Long Inlets					
Grated Inlet Performance Reduction Factor for Long Inlets					
Total Inlet Interception Capacity (assumes clogged condition)					
Inlet Capacity IS GOOD for Minor and Major Storms(>Q PEAK)					

ALLOWABLE CAPACITY FOR ONE-HALF OF STREET (Minor & Major Storm)

(Based on Regulated Criteria for Maximum Allowable Flow Depth and Spread)

Project: **Castle View Apartments**Inlet ID: **SD-INLET-A5.1 - DP3****Gutter Geometry:**

Maximum Allowable Width for Spread Behind Curb

Side Slope Behind Curb (leave blank for no conveyance credit behind curb)

Manning's Roughness Behind Curb (typically between 0.012 and 0.020)

Height of Curb at Gutter Flow Line

Distance from Curb Face to Street Crown

Gutter Width

Street Transverse Slope

Gutter Cross Slope (typically 2 inches over 24 inches or 0.083 ft/ft)

Street Longitudinal Slope - Enter 0 for sump condition

Manning's Roughness for Street Section (typically between 0.012 and 0.020)

T_{BACK}	=	5.0	ft
S_{BACK}	=	0.140	ft/ft
n_{BACK}	=	0.013	

H_{CURB}	=	6.00	inches
T_{CROWN}	=	44.0	ft
W	=	2.00	ft
S_X	=	0.020	ft/ft
S_W	=	0.083	ft/ft
S_O	=	0.000	ft/ft
n_{STREET}	=	0.013	

Max. Allowable Spread for Minor & Major Storm

Max. Allowable Depth at Gutter Flowline for Minor & Major Storm

Check boxes are not applicable in SUMP conditions

	Minor Storm	Major Storm	
T_{MAX}	44.0	44.0	ft
d_{MAX}	6.0	12.0	inches

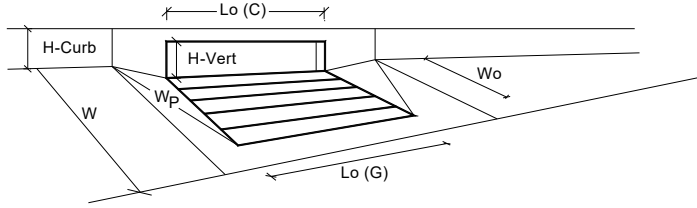
MINOR STORM Allowable Capacity is based on Depth Criterion

MAJOR STORM Allowable Capacity is based on Depth Criterion

	Minor Storm	Major Storm	
Q_{allow}	SUMP	SUMP	cfs

INLET IN A SUMP OR SAG LOCATION

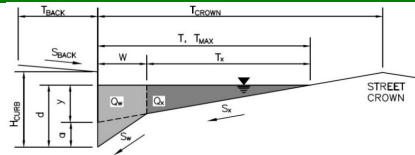
MHFD-Inlet, Version 5.01 (April 2021)



Design Information (Input)		MINOR		MAJOR	
Type of Inlet	Denver No. 16 Combination	Type =	Denver No. 16 Combination		
Local Depression (additional to continuous gutter depression 'a' from above)		a _{local} =	2.00	2.00	inches
Number of Unit Inlets (Grate or Curb Opening)		No =	1	1	
Water Depth at Flowline (outside of local depression)		Ponding Depth =	6.0	12.0	inches
Grate Information			MINOR	MAJOR	☐ Override Depths
Length of a Unit Grate		L _o (G) =	3.00	3.00	feet
Width of a Unit Grate		W _o =	1.73	1.73	feet
Area Opening Ratio for a Grate (typical values 0.15-0.90)		A _{ratio} =	0.31	0.31	
Clogging Factor for a Single Grate (typical value 0.50 - 0.70)		C _f (G) =	0.50	0.50	
Grate Weir Coefficient (typical value 2.15 - 3.60)		C _w (G) =	3.60	3.60	
Grate Orifice Coefficient (typical value 0.60 - 0.80)		C _o (G) =	0.60	0.60	
Curb Opening Information			MINOR	MAJOR	
Length of a Unit Curb Opening		L _o (C) =	3.00	3.00	feet
Height of Vertical Curb Opening in Inches		H _{vert} =	6.50	6.50	inches
Height of Curb Orifice Throat in Inches		H _{throat} =	5.25	5.25	inches
Angle of Throat (see USDCM Figure ST-5)		Theta =	0.00	0.00	degrees
Side Width for Depression Pan (typically the gutter width of 2 feet)		W _p =	2.00	2.00	feet
Clogging Factor for a Single Curb Opening (typical value 0.10)		C _f (C) =	0.10	0.10	
Curb Opening Weir Coefficient (typical value 2.3-3.7)		C _w (C) =	3.70	3.70	
Curb Opening Orifice Coefficient (typical value 0.60 - 0.70)		C _o (C) =	0.66	0.66	
Grate Flow Analysis (Calculated)			MINOR	MAJOR	
Clogging Coefficient for Multiple Units		Coef =	1.00	1.00	
Clogging Factor for Multiple Units		Clog =	0.50	0.50	
Grate Capacity as a Weir (based on Modified HEC22 Method)			MINOR	MAJOR	
Interception without Clogging		Q _{wi} =	6.0	17.6	cfs
Interception with Clogging		Q _{wc} =	3.0	8.8	cfs
Grate Capacity as a Orifice (based on Modified HEC22 Method)			MINOR	MAJOR	
Interception without Clogging		Q _{oi} =	5.6	7.8	cfs
Interception with Clogging		Q _{oc} =	2.8	3.9	cfs
Grate Capacity as Mixed Flow			MINOR	MAJOR	
Interception without Clogging		Q _{mi} =	5.2	10.6	cfs
Interception with Clogging		Q _{mc} =	2.6	5.3	cfs
Resulting Grate Capacity (assumes clogged condition)		Q_{Grate} =	2.6	3.9	cfs
Curb Opening Flow Analysis (Calculated)			MINOR	MAJOR	
Clogging Coefficient for Multiple Units		Coef =	1.00	1.00	
Clogging Factor for Multiple Units		Clog =	0.17	0.17	
Curb Opening as a Weir (based on Modified HEC22 Method)			MINOR	MAJOR	
Interception without Clogging		Q _{wi} =	2.0	8.5	cfs
Interception with Clogging		Q _{wc} =	1.7	7.0	cfs
Curb Opening as an Orifice (based on Modified HEC22 Method)			MINOR	MAJOR	
Interception without Clogging		Q _{oi} =	5.7	7.5	cfs
Interception with Clogging		Q _{oc} =	4.7	6.3	cfs
Curb Opening Capacity as Mixed Flow			MINOR	MAJOR	
Interception without Clogging		Q _{mi} =	2.9	6.9	cfs
Interception with Clogging		Q _{mc} =	2.4	5.7	cfs
Resulting Curb Opening Capacity (assumes clogged condition)		Q_{Curb} =	1.7	5.7	cfs
Resultant Street Conditions			MINOR	MAJOR	
Total Inlet Length		L =	3.00	3.00	feet
Resultant Street Flow Spread (based on street geometry from above)		T =	18.7	43.7	ft
Resultant Flow Depth at Street Crown		d _{CROWN} =	0.0	0.0	inches
Low Head Performance Reduction (Calculated)			MINOR	MAJOR	
Depth for Grate Midwidth		d _{Grate} =	0.523	1.023	ft
Depth for Curb Opening Weir Equation		d _{Curb} =	0.33	0.83	ft
Combination Inlet Performance Reduction Factor for Long Inlets		RF _{Combination} =	0.94	1.00	
Curb Opening Performance Reduction Factor for Long Inlets		RF _{Curb} =	1.00	1.00	
Grated Inlet Performance Reduction Factor for Long Inlets		RF _{Grate} =	0.94	1.00	
Total Inlet Interception Capacity (assumes clogged condition)		Q_s =	3.9	8.7	cfs
Inlet Capacity IS GOOD for Minor and Major Storms (>Q PEAK)		Q_{PEAK REQUIRED} =	0.9	1.9	cfs

ALLOWABLE CAPACITY FOR ONE-HALF OF STREET (Minor & Major Storm)

(Based on Regulated Criteria for Maximum Allowable Flow Depth and Spread)

Project: **Castle View Apartments**Inlet ID: **SD-INLET-A3.1 - DP6****Gutter Geometry:**

Maximum Allowable Width for Spread Behind Curb

Side Slope Behind Curb (leave blank for no conveyance credit behind curb)

Manning's Roughness Behind Curb (typically between 0.012 and 0.020)

Height of Curb at Gutter Flow Line

Distance from Curb Face to Street Crown

Gutter Width

Street Transverse Slope

Gutter Cross Slope (typically 2 inches over 24 inches or 0.083 ft/ft)

Street Longitudinal Slope - Enter 0 for sump condition

Manning's Roughness for Street Section (typically between 0.012 and 0.020)

$T_{BACK} =$	5.0	ft
$S_{BACK} =$	0.020	ft/ft
$n_{BACK} =$	0.013	

$H_{CURB} =$	6.00	inches
$T_{CROWN} =$	42.0	ft
$W =$	2.00	ft
$S_X =$	0.020	ft/ft
$S_W =$	0.083	ft/ft
$S_O =$	0.000	ft/ft
$n_{STREET} =$	0.013	

Max. Allowable Spread for Minor & Major Storm

Max. Allowable Depth at Gutter Flowline for Minor & Major Storm

Check boxes are not applicable in SUMP conditions

	Minor Storm	Major Storm	
$T_{MAX} =$	42.0	42.0	ft
$d_{MAX} =$	6.0	12.0	inches

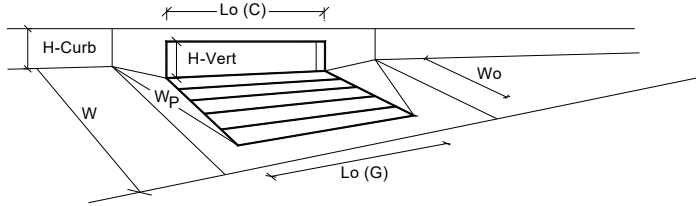
MINOR STORM Allowable Capacity is based on Depth Criterion

MAJOR STORM Allowable Capacity is based on Depth Criterion

	Minor Storm	Major Storm	
$Q_{allow} =$	SUMP	SUMP	cfs

INLET IN A SUMP OR SAG LOCATION

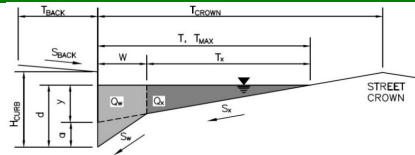
MHFD-Inlet, Version 5.01 (April 2021)



Design Information (Input)		MINOR		MAJOR	
Type of Inlet	Denver No. 16 Combination	Type =	Denver No. 16 Combination		
Local Depression (additional to continuous gutter depression 'a' from above)		a _{local} =	2.00	2.00	inches
Number of Unit Inlets (Grate or Curb Opening)		No =	1	1	
Water Depth at Flowline (outside of local depression)		Ponding Depth =	6.0	11.6	inches
Grate Information			MINOR	MAJOR	☐ Override Depths
Length of a Unit Grate		L _o (G) =	3.00	3.00	feet
Width of a Unit Grate		W _o =	1.73	1.73	feet
Area Opening Ratio for a Grate (typical values 0.15-0.90)		A _{ratio} =	0.31	0.31	
Clogging Factor for a Single Grate (typical value 0.50 - 0.70)		C _f (G) =	0.50	0.50	
Grate Weir Coefficient (typical value 2.15 - 3.60)		C _w (G) =	3.60	3.60	
Grate Orifice Coefficient (typical value 0.60 - 0.80)		C _o (G) =	0.60	0.60	
Curb Opening Information			MINOR	MAJOR	
Length of a Unit Curb Opening		L _o (C) =	3.00	3.00	feet
Height of Vertical Curb Opening in Inches		H _{vert} =	6.50	6.50	inches
Height of Curb Orifice Throat in Inches		H _{throat} =	5.25	5.25	inches
Angle of Throat (see USDCM Figure ST-5)		Theta =	0.00	0.00	degrees
Side Width for Depression Pan (typically the gutter width of 2 feet)		W _p =	2.00	2.00	feet
Clogging Factor for a Single Curb Opening (typical value 0.10)		C _f (C) =	0.10	0.10	
Curb Opening Weir Coefficient (typical value 2.3-3.7)		C _w (C) =	3.70	3.70	
Curb Opening Orifice Coefficient (typical value 0.60 - 0.70)		C _o (C) =	0.66	0.66	
Grate Flow Analysis (Calculated)			MINOR	MAJOR	
Clogging Coefficient for Multiple Units		Coef =	1.00	1.00	
Clogging Factor for Multiple Units		Clog =	0.50	0.50	
Grate Capacity as a Weir (based on Modified HEC22 Method)			MINOR	MAJOR	
Interception without Clogging		Q _{wi} =	6.0	16.7	cfs
Interception with Clogging		Q _{wa} =	3.0	8.3	cfs
Grate Capacity as a Orifice (based on Modified HEC22 Method)			MINOR	MAJOR	
Interception without Clogging		Q _{oi} =	5.6	7.7	cfs
Interception with Clogging		Q _{oa} =	2.8	3.9	cfs
Grate Capacity as Mixed Flow			MINOR	MAJOR	
Interception without Clogging		Q _{mi} =	5.2	10.2	cfs
Interception with Clogging		Q _{ma} =	2.6	5.1	cfs
Resulting Grate Capacity (assumes clogged condition)		Q_{Grate} =	2.6	3.9	cfs
Curb Opening Flow Analysis (Calculated)			MINOR	MAJOR	
Clogging Coefficient for Multiple Units		Coef =	1.00	1.00	
Clogging Factor for Multiple Units		Clog =	0.17	0.17	
Curb Opening as a Weir (based on Modified HEC22 Method)			MINOR	MAJOR	
Interception without Clogging		Q _{wi} =	2.0	7.9	cfs
Interception with Clogging		Q _{wa} =	1.7	6.6	cfs
Curb Opening as an Orifice (based on Modified HEC22 Method)			MINOR	MAJOR	
Interception without Clogging		Q _{oi} =	5.7	7.4	cfs
Interception with Clogging		Q _{oa} =	4.7	6.2	cfs
Curb Opening Capacity as Mixed Flow			MINOR	MAJOR	
Interception without Clogging		Q _{mi} =	2.9	6.6	cfs
Interception with Clogging		Q _{ma} =	2.4	5.5	cfs
Resulting Curb Opening Capacity (assumes clogged condition)		Q_{Curb} =	1.7	5.5	cfs
Resultant Street Conditions			MINOR	MAJOR	
Total Inlet Length		L =	3.00	3.00	feet
Resultant Street Flow Spread (based on street geometry from above)		T =	18.7	42.0	ft
Resultant Flow Depth at Street Crown		d _{CROWN} =	0.0	0.0	inches
Low Head Performance Reduction (Calculated)			MINOR	MAJOR	
Depth for Grate Midwidth		d _{Grate} =	0.523	0.989	ft
Depth for Curb Opening Weir Equation		d _{Curb} =	0.33	0.80	ft
Combination Inlet Performance Reduction Factor for Long Inlets		RF _{Combination} =	0.94	1.00	
Curb Opening Performance Reduction Factor for Long Inlets		RF _{Curb} =	1.00	1.00	
Grated Inlet Performance Reduction Factor for Long Inlets		RF _{Grate} =	0.94	1.00	
Total Inlet Interception Capacity (assumes clogged condition)		Q_s =	3.9	8.4	cfs
Inlet Capacity IS GOOD for Minor and Major Storms(>Q PEAK)		Q_{PEAK REQUIRED} =	3.3	6.8	cfs

ALLOWABLE CAPACITY FOR ONE-HALF OF STREET (Minor & Major Storm)

(Based on Regulated Criteria for Maximum Allowable Flow Depth and Spread)

Project: **Castle View Apartments**Inlet ID: **SD-INLET-B5.1 - DP13****Gutter Geometry:**

Maximum Allowable Width for Spread Behind Curb

Side Slope Behind Curb (leave blank for no conveyance credit behind curb)

Manning's Roughness Behind Curb (typically between 0.012 and 0.020)

Height of Curb at Gutter Flow Line

Distance from Curb Face to Street Crown

Gutter Width

Street Transverse Slope

Gutter Cross Slope (typically 2 inches over 24 inches or 0.083 ft/ft)

Street Longitudinal Slope - Enter 0 for sump condition

Manning's Roughness for Street Section (typically between 0.012 and 0.020)

$T_{BACK} =$	5.0	ft
$S_{BACK} =$	0.020	ft/ft
$n_{BACK} =$	0.013	

$H_{CURB} =$	6.00	inches
$T_{CROWN} =$	62.0	ft
$W =$	2.00	ft
$S_X =$	0.030	ft/ft
$S_W =$	0.083	ft/ft
$S_O =$	0.000	ft/ft
$n_{STREET} =$	0.013	

Max. Allowable Spread for Minor & Major Storm

Max. Allowable Depth at Gutter Flowline for Minor & Major Storm

Check boxes are not applicable in SUMP conditions

	Minor Storm	Major Storm	
$T_{MAX} =$	62.0	62.0	ft
$d_{MAX} =$	6.0	12.0	inches

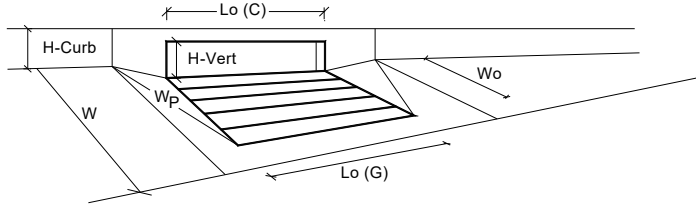
MINOR STORM Allowable Capacity is based on Depth Criterion

MAJOR STORM Allowable Capacity is based on Depth Criterion

	Minor Storm	Major Storm	
$Q_{allow} =$	SUMP	SUMP	cfs

INLET IN A SUMP OR SAG LOCATION

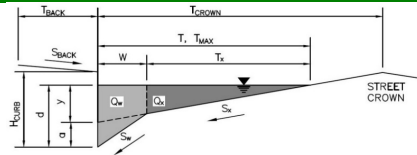
MHFD-Inlet, Version 5.01 (April 2021)



Design Information (Input)		MINOR		MAJOR	
Type of Inlet	Denver No. 16 Combination	Type =	Denver No. 16 Combination		
Local Depression (additional to continuous gutter depression 'a' from above)		a _{local} =	2.00	2.00	inches
Number of Unit Inlets (Grate or Curb Opening)		No =	1	1	
Water Depth at Flowline (outside of local depression)		Ponding Depth =	6.0	12.0	inches
Grate Information			MINOR	MAJOR	☐ Override Depths
Length of a Unit Grate		L _o (G) =	3.00	3.00	feet
Width of a Unit Grate		W _o =	1.73	1.73	feet
Area Opening Ratio for a Grate (typical values 0.15-0.90)		A _{ratio} =	0.31	0.31	
Clogging Factor for a Single Grate (typical value 0.50 - 0.70)		C _f (G) =	0.50	0.50	
Grate Weir Coefficient (typical value 2.15 - 3.60)		C _w (G) =	3.60	3.60	
Grate Orifice Coefficient (typical value 0.60 - 0.80)		C _o (G) =	0.60	0.60	
Curb Opening Information			MINOR	MAJOR	
Length of a Unit Curb Opening		L _o (C) =	3.00	3.00	feet
Height of Vertical Curb Opening in Inches		H _{vert} =	6.50	6.50	inches
Height of Curb Orifice Throat in Inches		H _{throat} =	5.25	5.25	inches
Angle of Throat (see USDCM Figure ST-5)		Theta =	0.00	0.00	degrees
Side Width for Depression Pan (typically the gutter width of 2 feet)		W _p =	2.00	2.00	feet
Clogging Factor for a Single Curb Opening (typical value 0.10)		C _f (C) =	0.10	0.10	
Curb Opening Weir Coefficient (typical value 2.3-3.7)		C _w (C) =	3.70	3.70	
Curb Opening Orifice Coefficient (typical value 0.60 - 0.70)		C _o (C) =	0.66	0.66	
Grate Flow Analysis (Calculated)			MINOR	MAJOR	
Clogging Coefficient for Multiple Units		Coef =	1.00	1.00	
Clogging Factor for Multiple Units		Clog =	0.50	0.50	
Grate Capacity as a Weir (based on Modified HEC22 Method)			MINOR	MAJOR	
Interception without Clogging		Q _{wi} =	6.0	17.6	cfs
Interception with Clogging		Q _{wc} =	3.0	8.8	cfs
Grate Capacity as a Orifice (based on Modified HEC22 Method)			MINOR	MAJOR	
Interception without Clogging		Q _{oi} =	5.6	7.8	cfs
Interception with Clogging		Q _{oc} =	2.8	3.9	cfs
Grate Capacity as Mixed Flow			MINOR	MAJOR	
Interception without Clogging		Q _{mi} =	5.2	10.6	cfs
Interception with Clogging		Q _{mc} =	2.6	5.3	cfs
Resulting Grate Capacity (assumes clogged condition)		Q_{Grate} =	2.6	3.9	cfs
Curb Opening Flow Analysis (Calculated)			MINOR	MAJOR	
Clogging Coefficient for Multiple Units		Coef =	1.00	1.00	
Clogging Factor for Multiple Units		Clog =	0.17	0.17	
Curb Opening as a Weir (based on Modified HEC22 Method)			MINOR	MAJOR	
Interception without Clogging		Q _{wi} =	2.0	8.5	cfs
Interception with Clogging		Q _{wc} =	1.7	7.0	cfs
Curb Opening as an Orifice (based on Modified HEC22 Method)			MINOR	MAJOR	
Interception without Clogging		Q _{oi} =	5.7	7.5	cfs
Interception with Clogging		Q _{oc} =	4.7	6.3	cfs
Curb Opening Capacity as Mixed Flow			MINOR	MAJOR	
Interception without Clogging		Q _{mi} =	2.9	6.9	cfs
Interception with Clogging		Q _{mc} =	2.4	5.7	cfs
Resulting Curb Opening Capacity (assumes clogged condition)		Q_{Curb} =	1.7	5.7	cfs
Resultant Street Conditions			MINOR	MAJOR	
Total Inlet Length		L =	3.00	3.00	feet
Resultant Street Flow Spread (based on street geometry from above)		T =	13.1	29.8	ft
Resultant Flow Depth at Street Crown		d _{CROWN} =	0.0	0.0	inches
Low Head Performance Reduction (Calculated)			MINOR	MAJOR	
Depth for Grate Midwidth		d _{Grate} =	0.523	1.023	ft
Depth for Curb Opening Weir Equation		d _{Curb} =	0.33	0.83	ft
Combination Inlet Performance Reduction Factor for Long Inlets		RF _{Combination} =	0.94	1.00	
Curb Opening Performance Reduction Factor for Long Inlets		RF _{Curb} =	1.00	1.00	
Grated Inlet Performance Reduction Factor for Long Inlets		RF _{Grate} =	0.94	1.00	
Total Inlet Interception Capacity (assumes clogged condition)		Q_s =	3.9	8.7	cfs
Inlet Capacity IS GOOD for Minor and Major Storms (>Q PEAK)		Q_{PEAK REQUIRED} =	2.9	5.9	cfs

ALLOWABLE CAPACITY FOR ONE-HALF OF STREET (Minor & Major Storm)

(Based on Regulated Criteria for Maximum Allowable Flow Depth and Spread)

Project: **Castle View Apartments**Inlet ID: **SD-INLET-B2.1 - DP17****Gutter Geometry:**

Maximum Allowable Width for Spread Behind Curb

Side Slope Behind Curb (leave blank for no conveyance credit behind curb)

Manning's Roughness Behind Curb (typically between 0.012 and 0.020)

Height of Curb at Gutter Flow Line

Distance from Curb Face to Street Crown

Gutter Width

Street Transverse Slope

Gutter Cross Slope (typically 2 inches over 24 inches or 0.083 ft/ft)

Street Longitudinal Slope - Enter 0 for sump condition

Manning's Roughness for Street Section (typically between 0.012 and 0.020)

T_{BACK}	=	5.0	ft
S_{BACK}	=	0.250	ft/ft
n_{BACK}	=	0.013	

H_{CURB}	=	6.00	inches
T_{CROWN}	=	62.0	ft
W	=	2.00	ft
S_X	=	0.050	ft/ft
S_W	=	0.083	ft/ft
S_O	=	0.000	ft/ft
n_{STREET}	=	0.013	

Max. Allowable Spread for Minor & Major Storm

Max. Allowable Depth at Gutter Flowline for Minor & Major Storm

Check boxes are not applicable in SUMP conditions

	Minor Storm	Major Storm	
T_{MAX}	62.0	62.0	ft
d_{MAX}	6.0	12.0	inches

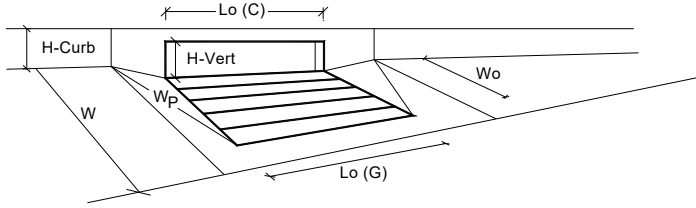
MINOR STORM Allowable Capacity is based on Depth Criterion

MAJOR STORM Allowable Capacity is based on Depth Criterion

	Minor Storm	Major Storm	
Q_{allow}	SUMP	SUMP	cfs

INLET IN A SUMP OR SAG LOCATION

MHFD-Inlet, Version 5.01 (April 2021)



Design Information (Input)		MINOR		MAJOR	
Type of Inlet	Denver No. 16 Combination	Type =	Denver No. 16 Combination		
Local Depression (additional to continuous gutter depression 'a' from above)		a _{local} =	2.00	2.00	inches
Number of Unit Inlets (Grate or Curb Opening)		No =	2	2	
Water Depth at Flowline (outside of local depression)		Ponding Depth =	6.0	12.0	inches
Grate Information			MINOR	MAJOR	☐ Override Depths
Length of a Unit Grate		L _o (G) =	3.00	3.00	feet
Width of a Unit Grate		W _o =	1.73	1.73	feet
Area Opening Ratio for a Grate (typical values 0.15-0.90)		A _{ratio} =	0.31	0.31	
Clogging Factor for a Single Grate (typical value 0.50 - 0.70)		C _r (G) =	0.50	0.50	
Grate Weir Coefficient (typical value 2.15 - 3.60)		C _w (G) =	3.60	3.60	
Grate Orifice Coefficient (typical value 0.60 - 0.80)		C _o (G) =	0.60	0.60	
Curb Opening Information			MINOR	MAJOR	
Length of a Unit Curb Opening		L _o (C) =	3.00	3.00	feet
Height of Vertical Curb Opening in Inches		H _{vert} =	6.50	6.50	inches
Height of Curb Orifice Throat in Inches		H _{throat} =	5.25	5.25	inches
Angle of Throat (see USDCM Figure ST-5)		Theta =	0.00	0.00	degrees
Side Width for Depression Pan (typically the gutter width of 2 feet)		W _p =	2.00	2.00	feet
Clogging Factor for a Single Curb Opening (typical value 0.10)		C _r (C) =	0.10	0.10	
Curb Opening Weir Coefficient (typical value 2.3-3.7)		C _w (C) =	3.70	3.70	
Curb Opening Orifice Coefficient (typical value 0.60 - 0.70)		C _o (C) =	0.66	0.66	
Grate Flow Analysis (Calculated)			MINOR	MAJOR	
Clogging Coefficient for Multiple Units		Coef =	1.50	1.50	
Clogging Factor for Multiple Units		Clog =	0.38	0.38	
Grate Capacity as a Weir (based on Modified HEC22 Method)			MINOR	MAJOR	
Interception without Clogging		Q _{wi} =	6.6	25.7	cfs
Interception with Clogging		Q _{wa} =	4.1	16.1	cfs
Grate Capacity as a Orifice (based on Modified HEC22 Method)			MINOR	MAJOR	
Interception without Clogging		Q _{oi} =	11.2	15.7	cfs
Interception with Clogging		Q _{oa} =	7.0	9.8	cfs
Grate Capacity as Mixed Flow			MINOR	MAJOR	
Interception without Clogging		Q _{mi} =	7.8	18.1	cfs
Interception with Clogging		Q _{ma} =	4.8	11.3	cfs
Resulting Grate Capacity (assumes clogged condition)		Q_{Grate} =	4.1	9.8	cfs
Curb Opening Flow Analysis (Calculated)			MINOR	MAJOR	
Clogging Coefficient for Multiple Units		Coef =	1.00	1.00	
Clogging Factor for Multiple Units		Clog =	0.08	0.08	
Curb Opening as a Weir (based on Modified HEC22 Method)			MINOR	MAJOR	
Interception without Clogging		Q _{wi} =	3.0	16.9	cfs
Interception with Clogging		Q _{wa} =	2.8	15.5	cfs
Curb Opening as an Orifice (based on Modified HEC22 Method)			MINOR	MAJOR	
Interception without Clogging		Q _{oi} =	11.4	15.0	cfs
Interception with Clogging		Q _{oa} =	10.4	13.8	cfs
Curb Opening Capacity as Mixed Flow			MINOR	MAJOR	
Interception without Clogging		Q _{mi} =	5.0	13.7	cfs
Interception with Clogging		Q _{ma} =	4.6	12.6	cfs
Resulting Curb Opening Capacity (assumes clogged condition)		Q_{Curb} =	2.8	12.6	cfs
Resultant Street Conditions			MINOR	MAJOR	
Total Inlet Length		L =	6.00	6.00	feet
Resultant Street Flow Spread (based on street geometry from above)		T =	8.7	18.7	ft
Resultant Flow Depth at Street Crown		d _{CROWN} =	0.0	0.0	inches
Low Head Performance Reduction (Calculated)			MINOR	MAJOR	
Depth for Grate Midwidth		d _{Grate} =	0.523	1.023	ft
Depth for Curb Opening Weir Equation		d _{Curb} =	0.33	0.83	ft
Combination Inlet Performance Reduction Factor for Long Inlets		RF _{Combination} =	0.71	1.00	
Curb Opening Performance Reduction Factor for Long Inlets		RF _{Curb} =	1.00	1.00	
Grated Inlet Performance Reduction Factor for Long Inlets		RF _{Grate} =	0.71	1.00	
Total Inlet Interception Capacity (assumes clogged condition)		Q_s =	6.2	20.1	cfs
Inlet Capacity IS GOOD for Minor and Major Storms (>Q PEAK)		Q_{PEAK REQUIRED} =	2.8	6.8	cfs

APPENDIX C:

MS4 COMPLIANCE SUMMARY



Summary of Water Quality Conformance to MS4 Permit

The purpose of this worksheet is to document conformance with the Town of Castle Rock's MS4 permit with regard to permanent water quality on land disturbance projects.

Project Name Castle View Apartments, Lot 2 North, The Meadows PD Filing No. 19

Project Owner Castle View Owner LLC

Project Location Town of Castle Rock

ToCR Project Number SDP22-0032

Total Site Area 5.467 acres

Total Size of Common Plan of Development _____ acres

Check all that apply:

☒ **Project within Plum Creek Basin**

☐ **Project within Cherry Creek Basin**

Estimated construction completion date Spring 2024

1. The water quality control measure(s) for applicable development sites shall meet one of the following base design standards as per the SDDTCM Section 14.4. Please select all design standards that were applied to meet conformance with the MS4 on this site.

- ☐ WQCV standard
- ☐ Pollutant removal standard
- ☐ Runoff reduction standard
- ☒ Applicable site draining to regional WQVC control measure (accepts drainage prior to discharging to WOTS)
- ☐ Applicable site draining to regional WQVC control facility (with receiving pervious area control measure upstream of WOTS)
- ☐ Constrained redevelopment sites standard
 - Imperviousness of existing site _____/_____ (Imp. Ac/Site Ac) = ____%
 - Variance required TCV No. _____
- ☐ Existing control measure with WQCV per previous criteria standards
 - Reference Construction Permit No. _____
- ☐ Cherry Creek Basin only, choose one: ☐ Tier 1 ☐ Tier 2 ☐ Tier 3
- ☐ No control measures provided (See Permanent WQ Worksheet for applicability)

Summary of Water Quality Conformance to MS4 Permit

2. Was an exclusion to water quality applied as per SDDTCM Section 13.1.5? ☐ Yes ☐ No

i. If yes, please select all that apply, provide total excluded impervious area(s) and submit variance, as applicable: TCV No. _____

☐ Pavement management site

Excluded impervious area: _____ acres

☐ Excluded roadway redevelopment

Excluded impervious area: _____ acres

☐ Excluded existing roadway areas

Excluded impervious area: _____ acres

☐ Above ground and below ground utilities

☐ Large lot single family home

☐ Non-residential and non-commercial infiltration

Excluded impervious area: _____ acres

☐ Land disturbance for land to remain undeveloped

Excluded impervious area: _____ acres

☐ Stream Stabilization Sites

Excluded impervious area: _____ acres

☐ Trails

Excluded impervious area: _____ acres

☐ Oil and Gas Exploration

3. For Development and Redevelopment sites, following any exclusions claimed above, was any portion of the site excluded up to 20% of the site and not to exceed one acre? ☐ Yes ☐ No

If yes, complete the following:

Excluded area: _____ acres

Total Site area: _____ acres, _____ % site excluded

4. For Constrained sites, was any portion of the site excluded up to 50% of the site and not to exceed 50% of the impervious area? ☐ Yes ☐ No

If yes, complete the following:

Excluded area: _____ acres

Excluded impervious area: _____ acres

Total Site area: _____ acres, _____ % site excluded

Total Impervious area: _____ acres, _____ % impervious excluded

APPENDIX D:

DRAINAGE MAP

WARE MALCOMB
CIVIL ENGINEERING & SURVEYING

900 south broadway
suite 320
denver, co 80209
p 303.561.3333
waremalcomb.com

MEADOWS SENIOR HOUSING
PUBLIC IMPROVEMENT CONSTRUCTION PLANS
TIMBER MILL PARKWAY & N. MEADOWS DR.
CASTLE ROCK, CO 80109

DRAINAGE PLAN

NO.	DATE	REMARKS
1	10/12/2022	1ST CD SUBMITTAL

JOB NO.:	DCS22-4026
PA / PM:	T. SWAN
DESIGNED:	I.CONTRERAS
DATE:	08/15/2022
PLOT DATE:	12/09/22

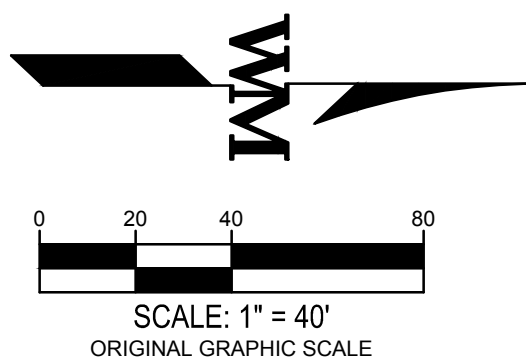
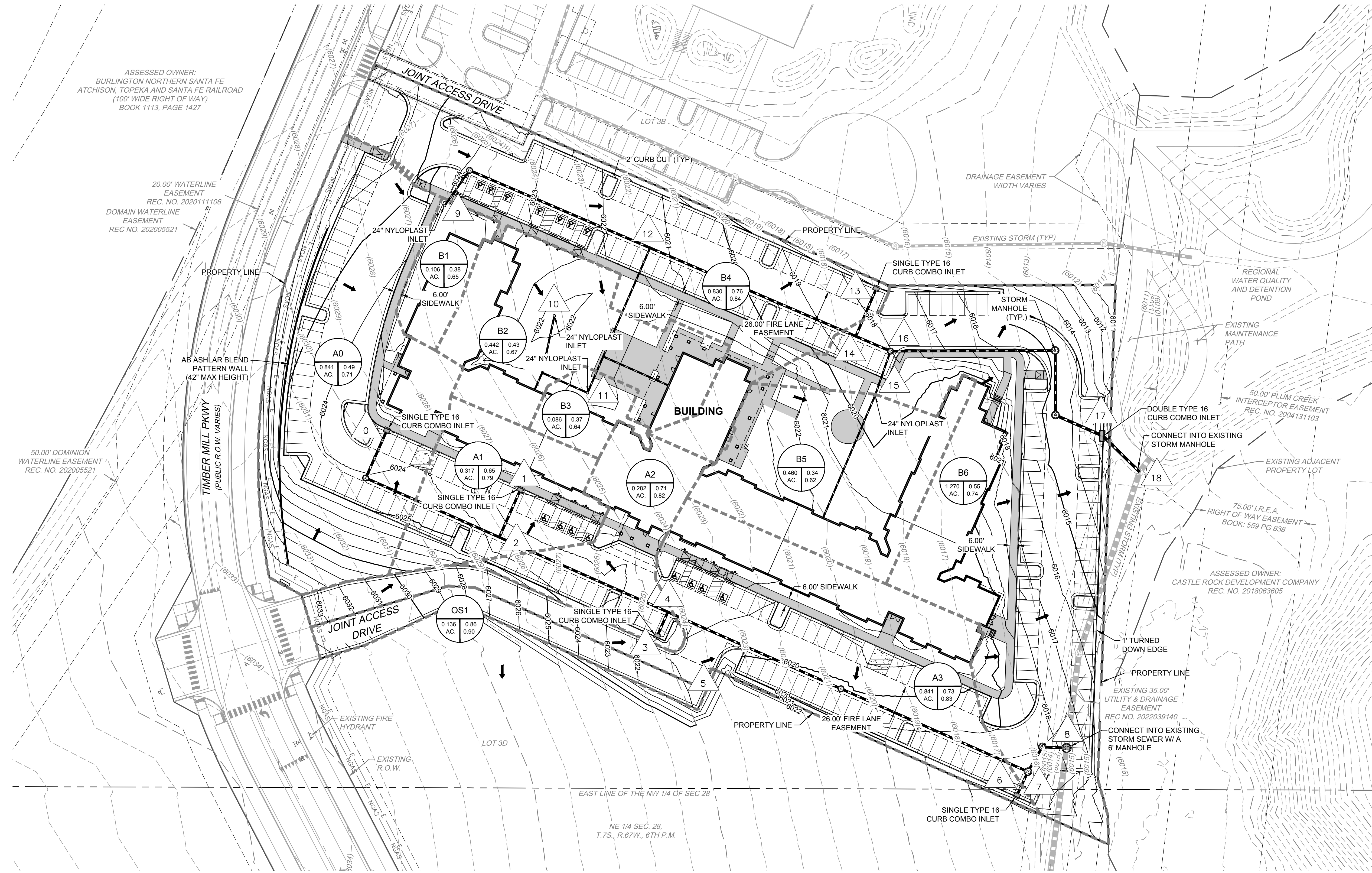
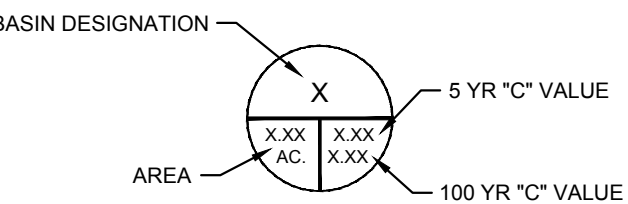
SHEET

DR1

NOT FOR CONSTRUCTION

LEGEND:

- PROPERTY LINE
- RIGHT-OF-WAY LINE
- PROPOSED 5' CONTOUR
- PROPOSED 1' CONTOUR
- EXISTING 5' CONTOUR
- EXISTING 1' CONTOUR
- PROPOSED STORM LINE
- EXISTING STORM LINE
- PROPOSED STORM INLET
- EXISTING STORM INLET
- BASIN BOUNDARY
- EMERGENCY OVERFLOW PATH
- DESIGN POINT
- FLOW DIRECTION
- EXISTING FLOW DIRECTION



WARE MALCOMB assumes no responsibility for utility locations. The utilities shown on this drawing have been plotted from the best available information. It is, however, the contractors responsibility to field verify the location of all utilities prior to the commencement of any construction.

TOWN OF CASTLE ROCK APPROVAL
PLANS ARE HEREBY APPROVED FOR ONE YEAR
FROM DATE OF DEVELOPMENT SERVICES APPROVAL



DEVELOPMENT SERVICES

DATE

APPENDIX D:

EXCERPTS OF PHASE III DRAINAGE REPORT FOR THE
MEADOWS FILING NO. 19 LOT 2 NORTH
PROJECT NO. CD21-0042



**PHASE III DRAINAGE REPORT
FOR
The Meadows Filing No. 19 Lot 2 North
Castle Rock, CO
Project No. CD21-0042**

PREPARED FOR:

CASTLE ROCK DEVELOPMENT CO.
3033 E. 1ST AVE. #310
DENVER, COLORADO 80206
303-394-5500
CONTACT: R.C HANISCH

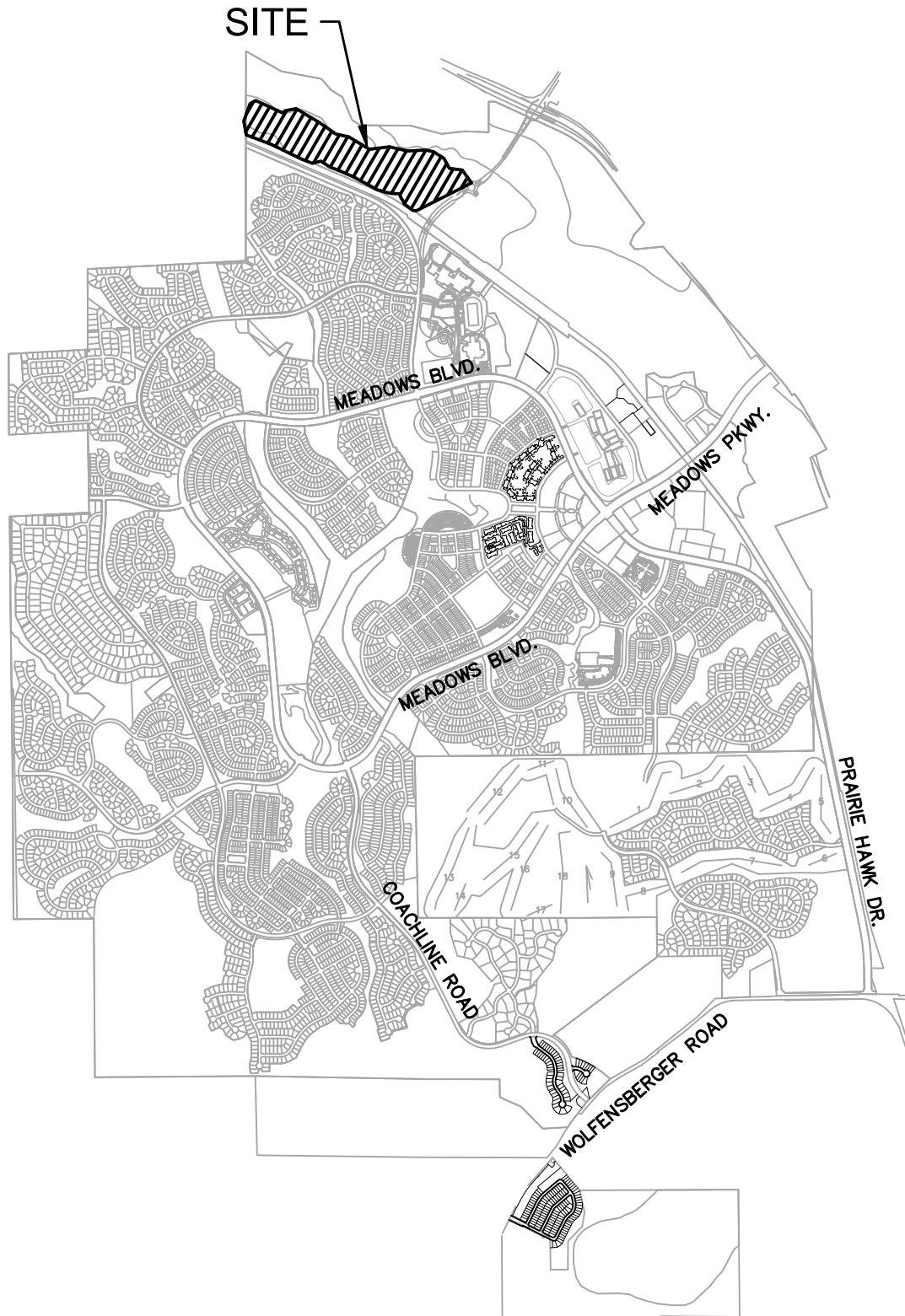
PREPARED BY:

TERRACINA DESIGN, LLC
10200 E. GIRARD AVENUE
BUILDING A, SUITE 314
DENVER, CO 80231
PHONE: 303-632-8867
CONTACT: MARTIN METSKER, PE
PROJECT NUMBER: 14-003

FEBRUARY 2022

terr a c i n a d e s i g n

Landscape Architecture, Planning & Engineering
10200 E. Girard Avenue, A-314. Denver, CO 80231 PH: 303.632.8867



N.T.S.

Project Name: Meadows Filing 19 Lot 2 North
Prepared By: MJG

Percent Impervious Calculations

Basin Id	Design Point	Total Basin Area	Streets				Weighted % Impervious
			Total	Historic	Roof	Paved	
				2%	90%	100%	40%
			Area	Area	Area	Area	Area
A01	A01	2.22	0.00	2.22			90.0%
A02	A02	6.71	0.00	6.71			90.0%
A03	A03	0.48	0.08		0.40		83.2%
A04	A04	0.69	0.13		0.56		82.1%
A05	A05	2.65	0.00	2.65			90.0%
A06	A06	9.73	0.00	9.73			90.0%
A07	A07	7.59	0.00	7.59			90.0%
A08	A08	2.08	2.08				2.0%
A09	A09	0.49	0.12		0.37		76.4%
A10	A10	0.73	0.13		0.60		82.0%
B1	B1	7.75	0.00	7.75			90.0%
C1	C1	0.58	0.21		0.37		63.9%
C2	C2	0.82	0.19		0.64		77.9%
C3	C3	1.91	0.00	1.91			90.0%
C4	C4	2.00	0.00	2.00			90.0%
C5	C5	4.76	0.00	4.76			90.0%
C6	C6	0.95	0.00	0.28		0.68	54.5%
C7	C7	0.74	0.74				2.0%
C8	C8	1.35	0.34		1.00		75.0%
C9	C9	1.36	0.62		0.74		55.1%
CO1	CO1	4.56	2.49			2.07	19.3%
CO2	CO2	3.79	2.22			1.56	17.7%
D1	D1	4.80	0.66		0.37	3.77	39.4%
C10	C10	0.14	0.05		0.09		64.6%
C11	C11	0.09	0.03		0.06		65.5%

Project Name: Meadows Filing 19 Lot 2 North

Prepared By: MJG

Peak Runoff Rational Method (5-Year Event)

Rainfall Depth-Duration-Frequency (1-hr) =							1.43
Design Point	Basin ID	Basin Area (Ac)	Runoff Coeff (5-Year)	T_c (min)	C X A	I (in/hr)	Q (cfs)
A01	A01	2.22	0.77	6.0	1.71	4.62	7.91
A02	A02	6.71	0.77	9.3	5.18	3.98	20.61
A03	A03	0.48	0.72	5.0	0.35	4.85	1.68
A04	A04	0.69	0.71	13.3	0.49	3.43	1.67
A05	A05	2.65	0.77	11.2	2.05	3.69	7.56
A06	A06	9.73	0.77	13.6	7.52	3.39	25.54
A07	A07	7.59	0.77	9.9	5.87	3.89	22.81
A08	A08	2.08	0.05	29.3	0.11	2.28	0.24
A09	A09	0.49	0.66	5.7	0.33	4.69	1.53
A10	A10	0.73	0.71	9.6	0.52	3.93	2.04
B1	B1	7.75	0.77	13.8	5.99	3.38	20.23
C1	C1	0.58	0.56	5.0	0.32	4.85	1.57
C2	C2	0.82	0.67	7.7	0.56	4.27	2.37
C3	C3	1.91	0.77	5.0	1.48	4.85	7.17
C4	C4	2.00	0.77	5.0	1.54	4.85	7.48
C5	C5	4.76	0.77	5.0	3.68	4.85	17.83
C6	C6	0.95	0.48	19.8	0.46	2.83	1.30
C7	C7	0.74	0.05	17.1	0.04	3.04	0.12
C8	C8	1.35	0.65	13.5	0.87	3.41	2.98
C9	C9	1.36	0.49	16.6	0.66	3.09	2.04
CO1	CO1	4.56	0.19	34.4	0.88	2.07	1.82
CO2	CO2	3.79	0.18	42.0	0.68	1.82	1.24
D1	D1	4.80	0.36	23.3	1.72	2.59	4.47
C10	C10	0.14	0.56	5.0	0.08	4.85	0.37
C11	C11	0.09	0.57	5.0	0.05	4.85	0.24

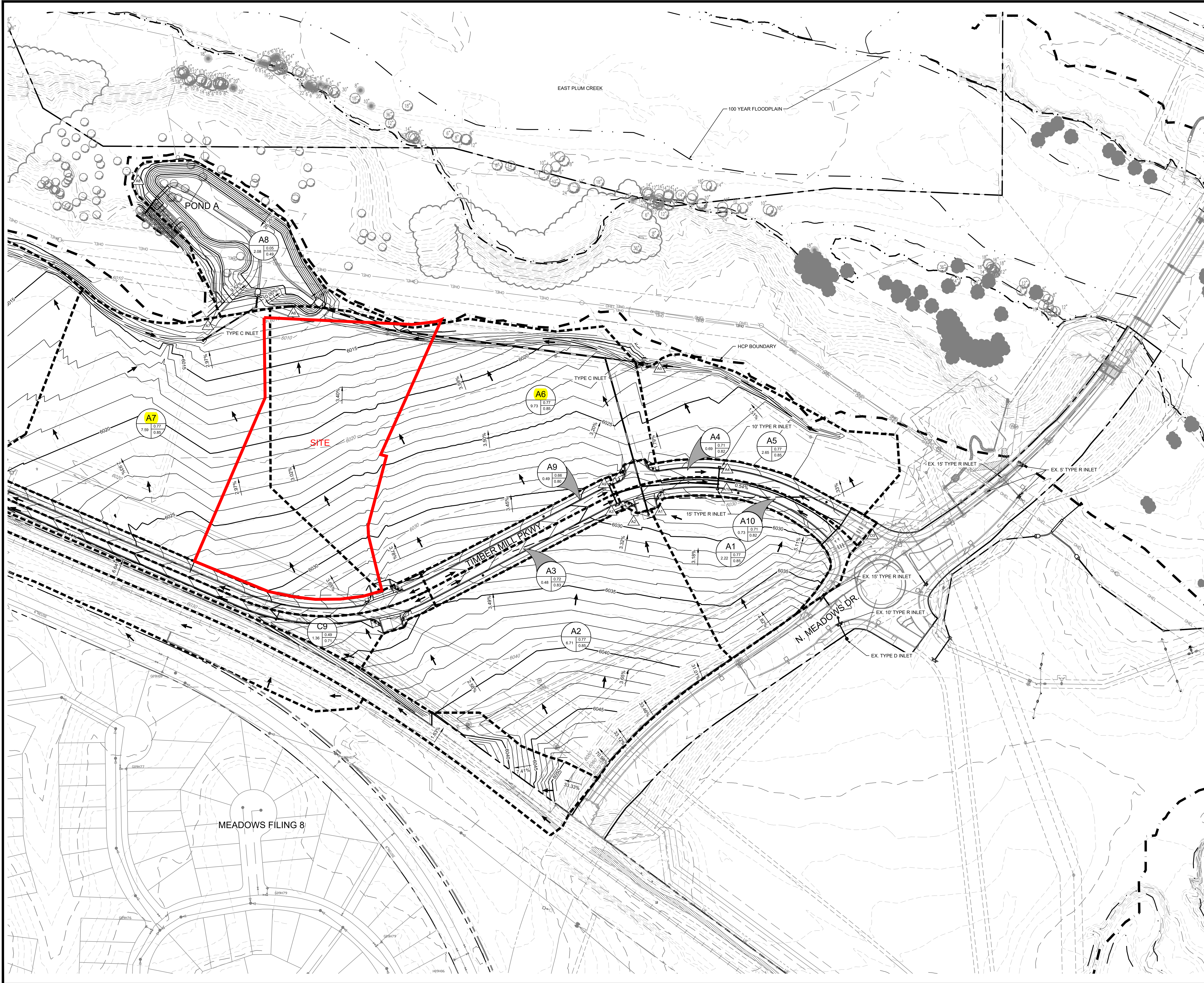
Project Name: Meadows Filing 19 Lot 2 North

Prepared By: MJG

Peak Runoff Rational Method (100-Year Event)

Rainfall Depth-Duration-Frequency (1-hr) =							2.60
Design Point	Basin ID	Basin Area (Ac)	Runoff Coeff (100-Year)	T_c (min)	C X A	I (in/hr)	Q (cfs)
A01	A01	2.22	0.85	6.0	1.89	8.39	15.87
A02	A02	6.7054	0.85300	9.3100	5.72	7.23	41.36
A03	A03	0.48	0.83	5.0	0.40	8.82	3.51
A04	A04	0.69	0.82	13.3	0.56	6.23	3.51
A05	A05	2.65	0.85	11.2	2.26	6.71	15.17
A06	A06	9.73	0.85	13.6	8.30	6.17	51.23
A07	A07	7.59	0.85	9.9	6.48	7.07	45.76
A08	A08	2.08	0.49	29.3	1.02	4.14	4.24
A09	A09	0.49	0.80	5.7	0.39	8.52	3.34
A10	A10	0.73	0.82	9.6	0.60	7.15	4.31
B1	B1	7.75	0.85	13.8	6.61	6.14	40.58
C1	C1	0.58	0.75	5.0	0.43	8.82	3.82
C2	C2	0.82	0.80	7.7	0.66	7.76	5.14
C3	C3	1.91	0.85	5.0	1.63	8.82	14.38
C4	C4	2.00	0.85	5.0	1.70	8.82	15.01
C5	C5	4.76	0.85	5.0	4.06	8.82	35.77
C6	C6	0.95	0.71	19.8	0.67	5.14	3.46
C7	C7	0.74	0.49	17.1	0.37	5.53	2.02
C8	C8	1.35	0.79	13.5	1.07	6.19	6.60
C9	C9	1.36	0.71	16.6	0.96	5.62	5.41
CO1	CO1	4.56	0.56	34.4	2.57	3.76	9.64
CO2	CO2	3.79	0.56	42.0	2.11	3.32	6.99
D1	D1	4.80	0.65	23.3	3.10	4.72	14.63
C10	C10	0.14	0.75	5.0	0.10	8.82	0.90
C11	C11	0.09	0.75	5.0	0.07	8.82	0.58

2/2/2022 1:35 AM: X:\14-003 MEADOWS\DOCUMENTS\FILING 19\DRAINAGE REPORT - LOT 2 NORTH1 - DRAINAGE MAP.DWG.



Project Name: Meadows Filing 19 Lot 2 North				
Prepared By: MJG				
Runoff Summary Table				
Design Point	Basin ID	Basin Area	5-YEAR Runoff (CFS)	100-YEAR Runoff (CFS)
A01	A01	2.22	7.91	15.87
A02	A02	6.71	20.61	41.36
A03	A03	0.48	1.68	3.51
A04	A04	0.69	1.67	3.51
A05	A05	2.65	7.56	15.17
A06	A06	9.73	25.54	51.23
A07	A07	7.59	22.81	45.76
A08	A08	2.08	0.24	4.24
A09	A09	0.49	1.53	3.34
A10	A10	0.73	2.04	4.31
B1	B1	7.75	20.23	40.58
C1	C1	0.58	1.57	3.82
C2	C2	0.82	2.37	5.14
C3	C3	1.91	7.17	14.38
C4	C4	2.00	7.48	15.01
C5	C5	4.76	17.83	35.77
C6	C6	0.95	1.30	3.46
C7	C7	0.74	0.12	2.02
C8	C8	1.35	2.98	6.60
C9	C9	1.36	2.04	5.41
CO1	CO1	4.56	1.82	9.64
CO2	CO2	3.79	1.24	6.99
D1	D1	4.80	4.47	14.63
C10	C10	0.14	0.37	0.90
C11	C11	0.09	0.24	0.58

LEGEND:

--- PROPERTY BOUNDARY LINE
--- PROPOSED EASEMENT
--- EXISTING HCP BOUNDARY

GRADING

--- 5530 --- EXISTING MAJOR CONTOUR
--- 5530 --- EXISTING MINOR CONTOUR
--- 5530 --- PROPOSED MAJOR CONTOUR
--- 5530 --- PROPOSED MINOR CONTOUR

STORM DRAIN

--- MANHOLE and PIPE
--- INLET
--- FLARED END SECTION

DRAINAGE

--- EX BASIN DESIGNATION FROM REFERENCED REPORT

BASIN AREA

--- BASIN DESIGNATION
--- 5 YEAR COEFFICIENTS
--- 100 YEAR COEFFICIENTS

--- BASIN BOUNDARY

--- DIRECTIONAL FLOW ARROW
--- EMERGENCY OVERTFLOW PATH

--- DESIGN POINT

0 100' 200'

1 inch = 100 ft.

THE MEADOWS

TOWN OF CASTLE ROCK, COLORADO

MEADOWS FILING 19 LOT 2 NORTH

DRAINAGE PLAN

DESIGNED BY: DB

DRAWN BY: DB

CHECKED BY: MM

JOB NO. 14-003

SHEET 1 OF 2

terraccina design

td

10200 E Girard Ave. A-314
Denver, CO 80231
PH: 303.632.8867

CALL 3 MONTHS IN ADVANCE BEFORE YOU DIG GRADE OR EXCAVATE FOR THE MARKING OF UNDERGROUND MEMBER UTILITIES.

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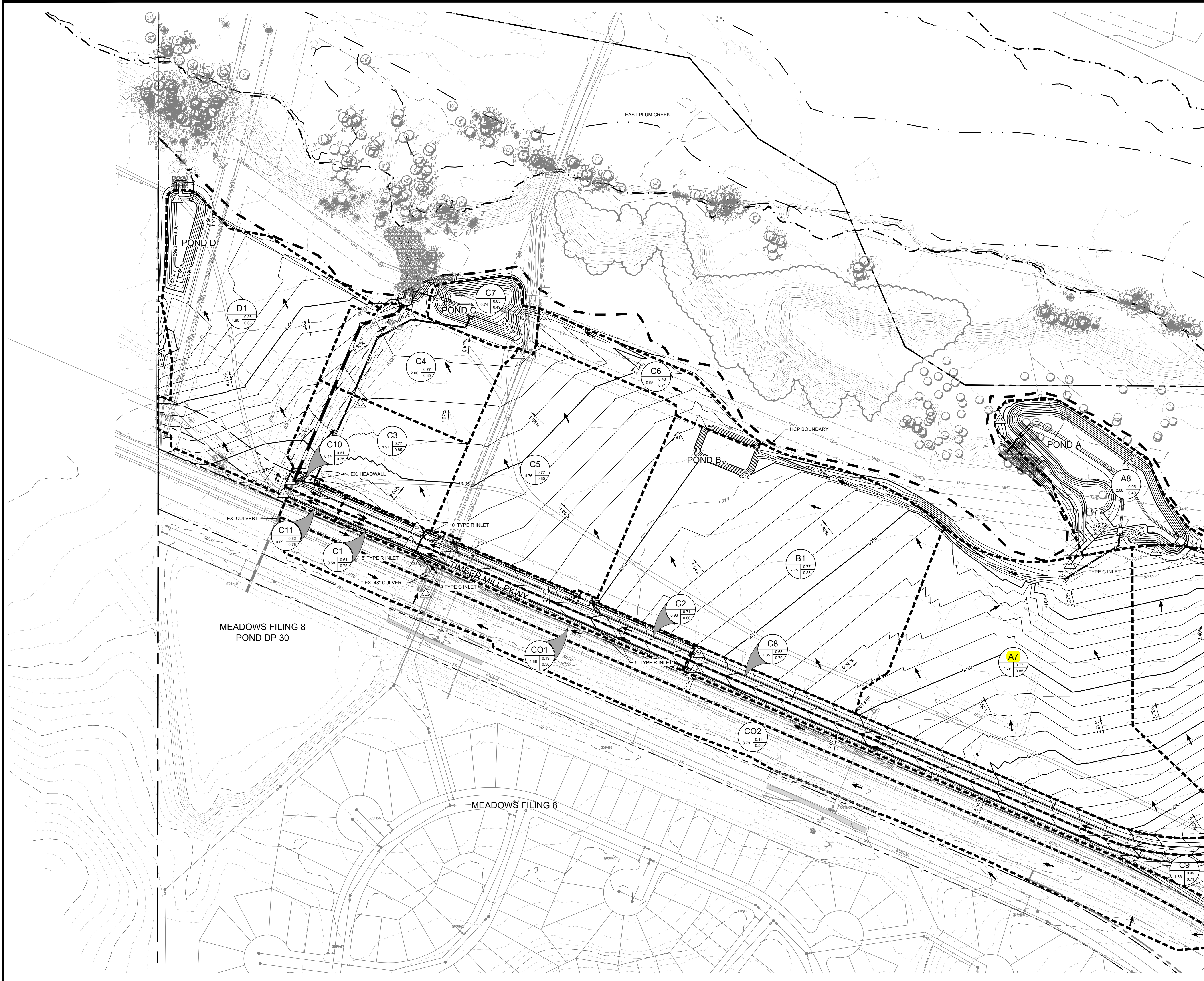
#

REVISION DESCRIPTION

DATE BY

90

2/3/2022 11:41 AM: X:\14-003 MEADOWS\DOCUMENTS\FILING 19\DRAINAGE REPORT - LOT 2 NORTH1 - DRAINAGE MAP.DWG.



Project Name: Meadows Filing 19 Lot 2 North
Prepared By: MJG

Runoff Summary Table

Design Point	Basin ID	Basin Area	5-YEAR Runoff (CFS)	100-YEAR Runoff (CFS)
A01	A01	2.22	7.91	15.87
A02	A02	6.71	20.61	41.36
A03	A03	0.48	1.68	3.51
A04	A04	0.69	1.67	3.51
A05	A05	2.65	7.56	15.17
A06	A06	9.73	25.54	51.23
A07	A07	7.59	22.81	45.76
A08	A08	2.08	0.24	4.24
A09	A09	0.49	1.53	3.34
A10	A10	0.73	2.04	4.31
B1	B1	7.75	20.23	40.58
C1	C1	0.58	1.57	3.82
C2	C2	0.82	2.37	5.14
C3	C3	1.91	7.17	14.38
C4	C4	2.00	7.48	15.01
C5	C5	4.76	17.83	35.77
C6	C6	0.95	1.30	3.46
C7	C7	0.74	0.12	2.02
C8	C8	1.35	2.98	6.60
C9	C9	1.36	2.04	5.41
CO1	CO1	4.56	1.82	9.64
CO2	CO2	3.79	1.24	6.99
D1	D1	4.80	4.47	14.63
C10	C10	0.14	0.37	0.90
C11	C11	0.09	0.24	0.58

LEGEND:

- PROPERTY BOUNDARY LINE
- PROPOSED EASEMENT
- EXISTING HCP BOUNDARY
- GRADING**
 - EXISTING MAJOR CONTOUR
 - EXISTING MINOR CONTOUR
 - PROPOSED MAJOR CONTOUR
 - PROPOSED MINOR CONTOUR
- STORM DRAIN**
 - MANHOLE AND PIPE
 - INLET
 - FLARED END SECTION
- DRAINAGE**
 - EX BASIN DESIGNATION FROM REFERENCED REPORT
 - BASIN DESIGNATION
 - 5 YEAR COEFFICIENTS
 - 100 YEAR COEFFICIENTS
 - BASIN BOUNDARY
 - DIRECTIONAL FLOW ARROW
 - EMERGENCY OVERTFLOW PATH
 - DESIGN POINT

terraccina design
10200 E Girard Ave. A-314
Denver, CO 80231
PH: 303.652.8867

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Know what's below
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THE MEADOWS
TOWN OF CASTLE ROCK, COLORADO
MEADOWS FILING 19 LOT 2 NORTH
DRAINAGE PLAN

DESIGNED BY: DB
DRAWN BY: DB
CHECKED BY: MM

JOB NO. 14-003
SHEET 2 OF 2