Public Hearing - Development Permit DP-024-24

A G E N D A: Public Hearing to be held on
Thursday, July 18, 2024 at 9:00 A.M.
Virtual - Meeting ID: 640384789
https://video.businessconnect.telus.com/join/640384789
And with Council physically present in the County Council Chambers, Smoky Lake.

1. **Opening:**
   - Public Hearing is called to order.
   - Public wishing to be heard must sign in on the sign-in sheet.
   - Confirmation is provided that the Public Hearing was advertised and notice was provided in accordance with the applicable legislation.
   - Purpose of the hearing is summarized:
     To obtain public input in regard to Development Permit DP-024-24: Supportive Living Facility, located on the lands legally described as River Lot 15, Victoria Settlement (North side of Victoria Trail) – Direct Control (DC2) District.
   - Ground rules of the hearing and order of speaking are reviewed.

2. **Staff Presentation:**
   - Smoky Lake County Planning Staff make their presentation(s).
   - Council asks questions and/or request points of clarity.

3. **Public Presentations via Written Submissions:**
   - Written submissions are read.
   - Council asks questions and/or request points of clarity.

4. **Public Presentations at the Public Hearing:**
   - Proponent's presentation.
   - Persons signed in whom are **in opposition** to the proposed bylaw are called upon to speak.
   - Council asks questions and/or request points of clarity.
   - Persons signed in whom are **in support** of the proposed bylaw are called upon to speak.
   - Council asks questions and/or request points of clarity.
   - Anyone else who has not spoken and wishes to speaks is called upon to speak.
   - Council asks questions and/or request points of clarity

5. **Questions and Answers:**
   - Any Council member having any additional questions of any speaker or of the staff or those who have spoken may speak.

6. **Closing Remarks:**
   - Declare the Public Hearing closed.

Meeting Date: Thursday, July 18, 2024

Topic: **Development Permit DP-024-24: Supportive Living Facility, located on the lands legally described as River Lot 15, Victoria Settlement (North side of Victoria Trail) – Direct Control (DC2) District**

Presented By: Planning & Development Services

Background: On October 4, 2023, the Metis Nation of Alberta submitted an application to amend Land Use Bylaw No. 1272-14, for the purposes of developing a 75-bed treatment facility (Supportive Living Facility). As administration began conducting its review of the application, it was determined that Land Use Bylaw No. 1272-14 did not include a definition for Supportive Living Facilities, nor did it include the necessary provisions to effectively ensure that these facilities are properly addressed and located in appropriate locations.

Bylaw No. 1453-23 was given First Reading on November 23, 2023. A Public Hearing on Bylaw No. 1453-23 was held on December 14, 2023, to hear arguments in support of and against the proposed Bylaw. Bylaw No. 1453-23 received Second and Third Readings on April 25, 2024.

Following the adoption of Bylaw No. 1453-23, the Applicant (The Metis Nation of Alberta) submitted an application for a Development Permit to Smoky Lake County. Administration has been working with the applicant to ensure the necessary documentation has been provided to Smoky Lake County prior to consideration of said application.

The proposed location of the Supportive Living Facility, the lands legally described as River Lot 15, Victoria Settlement, were redistricted to Direct Control (DC2) District by Bylaw No. 1453-23, thus making Council the Development Authority for this application. As the Development Authority, Council is the decision-maker with respect to whether or not a Development Permit is issued, and if a Development Permit is issued, what conditions it will be subject to.

While there is no statutory requirement to hold a Public Hearing on a Development Permit application within a Direct Control District, administration is recommending that a Public Hearing be held as the proposed Development has attracted a significant amount of public interest and has been the subject of numerous questions, comments and concerns raised by members of the public. Administration believes that in the spirit of public interest in the project that it would be prudent and beneficial to all parties for the proposed Development Permit to be the subject of a Public Hearing where all parties have an opportunity to be heard.

Administration has reviewed the Development Permit application and supporting documentation and provides a summary of the main points for reference:

GENERAL

- The proposed Supportive Living Facility will have a maximum capacity of 75 patients at any given time.
- The proposed Supportive Living Facility is approximately 4,236 square meters (45,600 square feet) in ground floor area and will have a maximum height of 8.1 meters (26.5 feet).
- The proposed Supportive Living Facility is being designed as a "recovery community" where clients will live on-site in a secure facility and will have access to services including opioid agonist treatment, counselling and employment supports.
- The proposed Supportive Living Facility will be a secure facility, including card-based access and on-site security monitoring of residents' and staff's activities.

WASTEWATER SERVICING

- The Applicant proposes to install a septic holding tank with a minimum holding capacity of 120,000 liters (4,237 cubic feet). The proposed use of a septic holding tank is congruent with Policy #56 of Smoky Lake County Bylaw No. 1305-17: *Victoria District Area Structure Plan* which requires that sanitary services for all developments located within the Plan area be provided as individual onsite systems.
- The Applicant's engineers provided volume calculations per fixture by using the Alberta Private Sewage Disposal Systems Standard of Practice (2021), totaling 1.94 liters per second.
- All wastewater will be hauled by the Applicant from the site to sewage lagoons at the Hamlet of Warspite (primary) and the Hamlet of Bellis (secondary) at the sole expense of the Applicant.
- The Planning and Development Manager has confirmed with the County's Environmental Operations Department that these lagoons have enough existing capacity to accommodate the estimated volume of wastewater that will be generated by the proposed Supportive Living Facility.

SOLID WASTE SERVICING

- The Applicant proposes to use outdoor garbage and recycling bins.
- Administration recommends that these bins be located in a coral that is screened from public view pursuant to Section 6.17.3 of Smoky Lake County Land Use Bylaw No. 1272-14.

WATER SERVICING

- The Applicant proposes to install a portable cistern with a minimum holding capacity of 120,000 liters (4,237 cubic feet) for its potable water needs. The proposed use of a portable cistern is congruent with Policy #56 of Smoky Lake County Bylaw No. 1305-17:

Victoria District Area Structure Plan which requires that water services for all developments located within the Plan area be provided as individual onsite systems.

- The Applicant's engineers provided volume calculations per fixture by using the National Building Code, totaling 7.6 liters per second.
- All potable water will be hauled from off-site at the sole expense of the Applicant.

STORMWATER MANAGEMENT

- The Applicant proposes the use of onsite swales and drainage ditches to capture stormwater before eventual discharge to the County ditch within the right-of-way of RGE RD 174A.

ON-SITE FIRE SUPPRESSION

- The Applicant proposes to construct a 50,000 gallon pond that will provide on-site water for fire suppression purposes.
- The Applicant proposes install a diesel-powered pump in conjunction with the proposed pond.
- Both the pond and the diesel-powered pump will be fenced for additional security and public safety.

ARCHITECTURAL DESIGN

- Smoky Lake County Bylaw No. 1305-17: *Victoria District Area Structure Plan* contains a number of policies that require specific design elements to be incorporated into developments located within the Plan area.
- Policy #65 requires an Applicant to submit elevation and façade information with a Development Permit application. The Applicant has satisfied this requirement.
- Policy #67 stipulates that commercial buildings located within the Plan area ***may*** be required to incorporate aspects of the Significant Architectural Features identified in Appendix B of the Bylaw. These Features include:
    - Shingled roof;
    - Gabled roof;
    - Log Construction;
    - 1.5/2 storey height;
    - Siting near Victoria Trail;
    - Cedar Shingle Siding;
    - South Facing;
    - Rectangular massing;
    - Symmetry in features;
    - Steep pitched roof;
    - White lathe finish;
    - White washing siding;

- Beveled siding;
- Plaster siding; and
- Exterior wall buttresses.

- The Applicant has incorporated several of these Significant Architectural Features in the proposed design including the use of gabled roofs, shingled roof, 1.5 storey height, rectangular massing and symmetry in features.
- Policy #69 stipulates that two of the three following options must be met, while encouraging that all three are met:
  - Option #1 - Future residential developments in the Plan area shall be a maximum of two storeys in height (not including the roof).
  - Option #2 - Rooflines of future developments in the plan area shall incorporate a steeply pitched roof (a rise/span ratio of 14:12 or greater).
  - Option #3 - Future residential, commercial and institutional developments in the Plan area shall generally be rectangular in shape.
  - The Applicant's proposed design satisfies Option # 1 and Option #3.
- Policy #70 stipulates that building features such as doors, windows, chimneys, dormers and gables should achieve symmetry in the overall design for commercial buildings within the Plan area. The Applicant's proposed design satisfies the intent of this Policy.
- Policy #72 stipulates that building colours and materials shall meet two of the three options below:
  - Option #1 – Heritage colours and/or natural wood shades shall be the principle colour of future residential, commercial and institutional buildings within the Heritage and Environment Area; the Commercial Area, and the Country Residential Area. Other colours may be used to highlight design and accent features such as trim, facia, windows, doors and porches.
  - Option #2 – Exterior finishes of future residential, commercial and institutional developments shall utilize or simulate the use of horizontal wood and/or shingle siding on the portion of the structure facing Victoria Trail and/or visible from the Victoria Trail.
  - Option #3 – For new developments, shingles or other roofing materials are to be selected from solid dark colour shades or heritage colours.
  - Despite the proposed development being located within the Agricultural Area and therefore exempt from the conditions imposed by Option #1, the Applicant's proposed colour scheme for the principal colour and accent features complies with the intent of Option #1.
  - The Applicant's proposed siding simulates the look of horizontal wood and therefore complies with the intent of Option #2.
  - The Applicant's proposed roofing materials satisfy the intent of Option #3.

GEOTECHNICAL ANALYSIS

- County administration requested that a geotechnical investigation be conducted by the Applicant pursuant to Policy #1 and Policy #24 of Smoky Lake County Bylaw No. 1305-17: *Victoria District Area Structure Plan*.
- The Applicant has provided a geotechnical investigation conducted by Shelby Engineering Ltd., dated May 29, 2024.
- The geotechnical investigation advanced 12 test holes and makes recommendations for foundation types that are feasible to support the proposed development. Administration recommends that adherence to the findings of the geotechnical investigation be made a condition of Development Permit approval.

FENCING

- Existing buffalo fencing is proposed to be used to secure the site during construction of the proposed development.
- During the final stages of construction, the applicant proposes to install an alternative fence for the front portion of the property (north-south along RGE RD 174A), subject to approval from the Development Authority.

ACCESS, TRAFFIC COUNTS, AND INTERNAL ROADS & PARKING

- The Applicant proposes a single access point off of RGE RD 174A to access the subject site.
- The Applicant will be required to obtain approval via an Approach Permit from the County's Road Foreman prior to construction of the proposed access.
- The proposed access will be required to meet the minimum specifications and standards established by Smoky Lake County Policy No. 03-05: *Approaches*, including, where applicable, the installation of an appropriately-sized culvert.
- The Applicant proposes to use a compacted gravel surface for both the internal road network and the parking areas.
- The parking area, including the dimensions of each stall, shall comply with Section 6.13 of Smoky Lake County Land Use Bylaw No. 1272-14.
- Should any improvements to the intersection of a highway and a local road be required as a result of the proposed development, the cost of those improvements shall be borne solely by the proponent, pursuant to Policy # 59 of Smoky Lake County Bylaw No. 1305-17: *Victoria District Area Structure Plan.*
- A traffic impact assessment conducted in 2005 for the Metis Crossing development was submitted as part of this Application and was supplemented with the following estimates of traffic volumes that will be generated by the proposed development:
    - Private vehicles (2 people per vehicle) = 14,000/year
    - Water and wastewater hauling vehicles = 200/year
    - Grocery/general supply vehicles = 110-135/year

- Handicap bus/multi-passenger transportation for families to visit = 35-60/year
- TOTAL VEHICLE TRAFFIC = 14,395/year (40 vehicles/day)
- The numbers above were calculated based on the following assumptions:
    - Private vehicles – based on staff required to operate the facility, maintenance workers, and four to six visitors per month per resident.
    - Water and wastewater hauling – one to two times per week for each water and wastewater.
    - Food and dry goods supply – one delivery per week or less (large amount of on-site dry and cold storage space reduces the number of deliveries required).
    - Medical/office/general supplies – no more than one delivery per week.
    - Miscellaneous or fast-delivery items – two to three times per month.

LANDSCAPING

- The Applicant proposes the use of a mix of Golden Willow and Columnar White Pine trees as perimeter screening.
- The proposed trees will be located inside of the proposed perimeter fencing.
- Administration recommends that as a condition of an approved Development Permit, that no tree clearing along the boundary of the lot be permitted, pursuant to Policy # 4 of Smoky Lake County Bylaw No. 1305-17: *Victoria District Area Structure Plan*.

APPENDIX "A" - PROPOSED CONDITIONS FOR DEVELOPMENT PERMIT DP-024-24

1. The proposed Development shall be sited and constructed as per the Site Plan, Overall Floor Plan (Drawing A2.1), Building Elevations (Drawing A4.1), Area 1 & 2 Building Elevations (A4.11), Area 3 & 4 Building Elevations (A4.12), Area 5 & 6 Building Elevations (A4.13), Area 7 Building Elevations (A4.14), Area 8 & 9 Building Elevations (A4.15), & Overall Building Sections (A5.1), dated June 19, 2024, attached to, and forming part of, this Development Permit.
2. Minimum setbacks from property lines shall be as follows:
    a. Minimum setback from property line adjacent to RGE RD 174A (west property line) = 60.0 meters (196.85 feet).
    b. Minimum setback from property line adjacent to property to the north = 40.0 meters (131.23 feet).
    c. Minimum setback from property line adjacent to Victoria Trail (south property line) = 1,000 meters (3,280.84 feet).
    d. Minimum setback from property line adjacent to property to the east = 40.0 meters (131.23 feet).
3. The proposed Development shall conform to the relevant Policies contained within Smoky Lake County Bylaw No. 1305-17: *Victoria District Area Structure Plan,* as amended.
4. The proposed Development shall be constructed in accordance with the findings and foundation recommendations contained within the geotechnical analysis, prepared by Shelby Engineering, dated May 29, 2024, attached to, and forming part of, this Development Permit.
5. Water and sanitary services for the proposed Development shall be provided as individual on-site systems. The Developer shall be responsible for all costs associated with the installation, maintenance, operation and use of all water and sanitary service systems relating to the proposed Development. Water and sanitary systems must meet all provincial requirements and regulations in force at the time of installation of said systems. The Developer shall provide to the Development Authority for Smoky Lake County, proof of compliance with these requirements and regulations.
6. Individual franchise utilities (i.e. power, telecommunications, etc.) shall be provided underground wherever possible to eliminate visual clutter that may negatively impact local viewscapes. Above ground utilities shall be located to the satisfaction of the Development Authority for Smoky Lake County.
7. Landscaping shall be provided by the Developer in accordance with the Site Plan, and said landscaping shall serve to act as a visual buffer between the proposed Development, including the proposed parking area, and adjacent lands. Landscaping shall be designed and located so as that the placement of said landscaping does not impair the visibility required for safe movement of persons or traffic, subject to the satisfaction of the Development Authority for Smoky Lake County.
8. The Developer shall provide an off-street parking area in accordance with Section 6.13 of Smoky Lake County Land Use Bylaw No. 1272-14. The Developer shall provide a minimum of sixty (60) off-street parking stalls with the following dimensions
    a. Minimum width of stall = 2.7 meters (8.86 feet);

b. Minimum depth of stall = 6.1 meters (20.01 feet);
c. Minium width of maneuvering aisle (one-way) = 7.3 meters (8.86 feet); and
d. Minimum overall depth (including stall depth on both sides of a one-way maneuvering aisle) = 19.5 meters (63.97 feet).

9. The off-street parking area shall be graded, drained, compacted and surfaced to the satisfaction of the Development Authority.
10. A minimum of one (1) loading space shall be provided with the following dimensions:
    a. Minimum width of loading space = 4.0 meters (13.12 feet);
    b. Minimum depth of loading space = 8.0 meters (26.24 feet); and
    c. Minimum height clearance = 4.3 meters (14.10 feet).
11. The loading space area shall be graded, drained, compacted and surfaced to the satisfaction of the Development Authority.
12. All signs, erected on land or affixed to the exterior of a building or structure, require a Development Permit from Smoky Lake County. No signs, billboards or advertising structures shall resemble or conflict with a traffic sign, nor shall it be a traffic hazard. No sign shall be of such size or design as to, in the opinion of the Development Authority, obstruct the vision of persons using roads abutting the parcel. The maximum area of any sign shall be 3.0 square meters (32.29 square feet). A flashing, animated or illuminated sign shall not be permitted where, in the opinion of the Development Authority, it might be objectionable to nearby residents or interfere with the movement of traffic. The area around sign structures shall be kept clean and free from overgrown vegetation, and free from refuse material. The Development Authority may require an engineer-approved plan prior to the issuance of a Development Permit for a sign in order to ensure said sign does not threaten public safety.
13. Fencing shall be constructed of materials which are to the satisfaction of the Development Authority. The electrification of fencing shall not be permitted.
14. The proposed Development shall commence within twelve (12) months from the date of issuance of this Development Permit and shall be completed within five (5) years from the date of issuance.
15. The Developer shall be required to obtain any and all approvals, permits, licenses and authorizations from any and all agencies, departments and authorities as may be required.
16. The Developer shall be required to apply for, and obtain, the following Safety Codes Act Permits:
    a. Building Permit;
    b. Gas Permit;
    c. Electrical Permit;
    d. Private Sewage Disposal Systems Permit; and
    e. Plumbing Permit.
17. The Developer shall be required to submit to Smoky Lake County Development Permit fees in accordance with Smoky Lake County Bylaw No. 1463-24: *Planning and Development Permit Fees.* Development Permit fees are charged at a rate of $1.00/$1,000.00 of construction value and shall be payable to the County prior to the issuance of the Development Permit.

18. Should any upgrade or improvements to an intersection of a highway and local road are required as a result of the proposed Development, the costs of such upgrades or improvements shall be borne by the Developer.
19. Outdoor lighting fixtures that incorporate flood lights to illuminate large areas of the subject lands or a building shall not be permitted. Lighting shall be designed with Crime Prevention Through Environmental Design (CPTED) wherever possible, to the satisfaction of the Development Authority. Light trespass onto adjacent properties should be avoided wherever possible.
20. The Developer shall provide on-site water for fire-suppression purposes to the satisfaction of the Development Authority.
21. The Developer, general and private contractors shall, during the course of construction, renovation and demolition, keep the land in a reasonable condition so as not to constitute a nuisance, and shall secure all manner of debris so as to prevent it from blowing onto any other private or public property. At the conclusion of construction, renovation and demolition, all building materials shall be removed from the site. As well, the Developer shall prevent excess soil and debris from being spilled onto public road allowances, streets, lanes and sidewalks.
22. Should solid waste be stored outdoors, it shall be stored in a corral or appropriately screened/fenced location that is locked and secured at all times.
23. Storage of medical and hazardous wastes shall be done in accordance with relevant Provincial and Federal laws and regulations pertaining to same. A Site Plan and Floor Plan identifying the location of secure areas for the storage of medication and hazardous waste shall be provided to the Development Authority prior to the proposed Supportive Living Facility commencing operations.
24. Prior to the commencement of operations of the proposed Supportive Living Facility, confirmation that the Facility has been inspected by an executive officer under the *Public Health Act*, R.S.A. 2000, c P-37, as amended, shall be provided to the Development Authority.
25. Prior to the commencement of operations of the proposed Supportive Living Facility, confirmation that the operator of the Facility has current insurance coverage in accordance with Section 5 of the *Supportive Living Accommodation Licensing Regulation,* shall be provided to the Development Authority.
26. Prior to the commencement of operations of the proposed Supportive Living Facility, confirmation of the Faciality's operator's corporate status shall be provided to the Development Authority.
27. Prior to the commencement of operations of the proposed Supportive Living Facility, a written process shall be provided to the Development Authority outlining processes that promote the security and safety of residents, including processes that account for all residents on a daily basis and ensure proper monitoring mechanisms or personnel are in place on a continuous basis (24 hours per day).
28. Throughout the course of operation of the proposed Supportive Living Facility, the operator shall comply with all relevant Federal and Provincial laws and regulations, including but not limited to, the *Public Health Act*, R.S.A. 2000, c P-37, the *Supportive Living Accommodation Licensing Regulation,* and all relevant Bylaws of Smoky Lake

County. Failure to maintain compliance with legislation, regulations or bylaws may result in Smoky Lake County exercising its rights under the *Municipal Government Act*, R.S.A. 2000, c. M-26, and Smoky Lake County Land Use Bylaw No. 1272-14, to take enforcement action, including, but not limited to, issuance of a Stop Order or revocation of a Development Permit.

DEVELOPMENT PERMIT APPLICATION FORM

Internal Use Only

Our File Number: _____ Roll Number: _____ Your File Number: _____

Applicant Information

Applicant/Agent: Melewka Homes Ltd Phone: [redacted]

Address: 25 Corriveau Ave Cell Phone: [redacted]

City/Prov. St. Albert Postal Code: T8N 5A3 Fax: _____

Email address: [redacted] Signature: LEWIS SEMASHKEWICH

Applicant/Agent Authorization: I am the applicant/agent authorized to act on behalf of the registered owner and that the information given on this form is full and complete and is, to the best of my knowledge, a true statement of the facts relating to this application.

Registered Landowner Information ☐ *Owner same as applicant*

Registered Owner: METIS CROSSING LTD Phone [redacted]

Address: 17339 Victoria Trail Fax: _____

City/Prov. Smoky Lake, Alberta Postal Code: T0A 3C0 Signature: _____

Section A - Property Information

Division _____

Legal: Lot ____ Block ____ Plan _____ and Part of ____ ¼ Sec _____ Twp_____ Rge _____ W4M

Subdivision Name (if applicable) or Area of Development VICTORI 15

Rural Address/Street Address RL-15-58-17-4 Parcel Size 158.55 Acres

Number of existing dwellings on property (please describe)

0

Has any previous application been filed in connection with this property? ☑ Yes ☐ No

If yes, please describe the details of the application and file number:

Rezoning Application

Is the subject property near a steep slope (exceeding 15%)? ☐ Yes ☑ No

Is the subject property near or bounded by a body of water? ☐ Yes ☑ No

Is the subject property within 800m of a provincial highway? ☑ Yes ☐ No 450 m

Is the subject property near a Confined Feeding Operation? ☐ Yes ☑ No Distance: _____

Is the subject property within 1.5km of a sour gas facility? ☐ Yes ☑ No Distance: _____

Is the subject property within 1.5km of a sewage treatment plant/lagoon? ☐ Yes ☑ No Distance: _____

Is the subject property immediately adjacent to the County boundary? ☑ Yes ☐ No

If yes, the adjoining municipality is: RGE ROAD 174A SMOKY LAKE COUNTY.

Section B – Proposed Development Information

Estimated Cost of Project $_____

Estimated Commencement Date June 01, 2024 Estimated Completion Date June, 31, 2025

Dwelling:
Floor Area 45,600 sq. ft. % of Lot Occupied 100% Height of Dwelling 8.1 ft / m

Accessory Building:
Floor Area 0 sq. ft. % of Lot Occupied 0 Height of Acc. Bldg 0 ft / m

Parking: # of Off-Street Parking Stalls (if applicable) _____

Land Use District (Zoning) of Property: Victoria Commercial District

Description of Work:
75 Beds Recovery centre

Section C – Preferred Method of Communication

When a decision has been made on your file, do you wish for us to:

☑ call you for pick up ☑ mail the decision ☑ email the decision

Section 608(1) of the *Municipal Government Act*, R.S.A. 2000, c. M-26, as amended states:

608(1) Where this *Act* or a regulation or bylaw made under this Section requires a document to be sent to a person, the document may be sent by electronic means if

a) the recipient has consented to receive documents from the sender by those electronic means and has provided an e-mail address, website or other electronic address to the sender for that purpose.

I/we grant consent for the Development Authority to communicate information and/or the decision electronically regarding my/our application. ☑ YES ☐ NO

OFFICE USE ONLY

Type of Payment: ☐ DEBIT ☐ CASH ☐ CHEQUE

Fee $_____

Receipt #_____

Receipt Date_____

Date Received_____
*and deemed complete by Development Authority.

☐ Entered into MuniSight PD #_____

Authorization: ☐ Permitted Use ☐ Discretionary Use

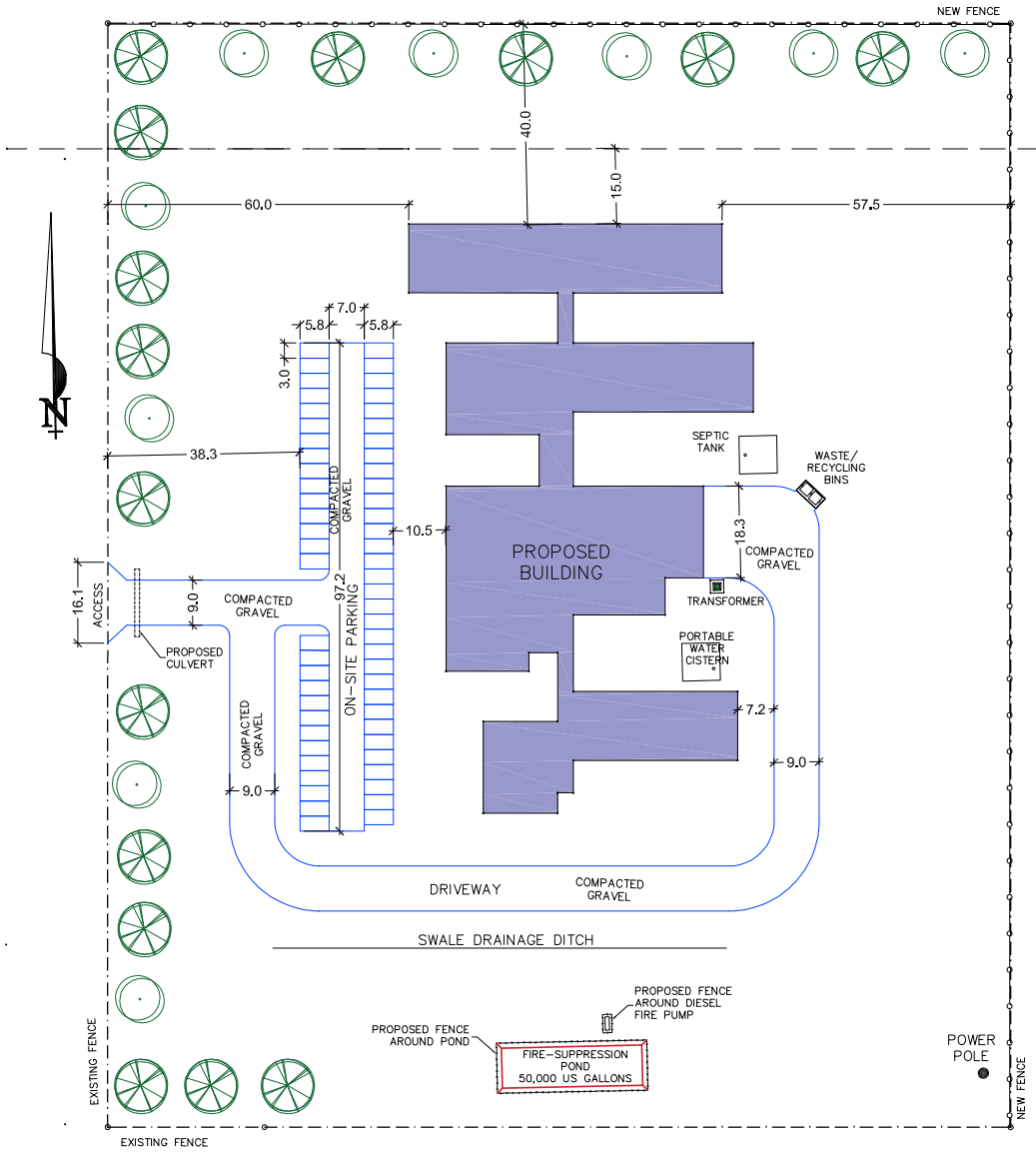
Issuing Officer's Name _____

Issuing Officer's Signature _____

Date of Approval _____

Date Issued _____

Comments and/or Variances _____

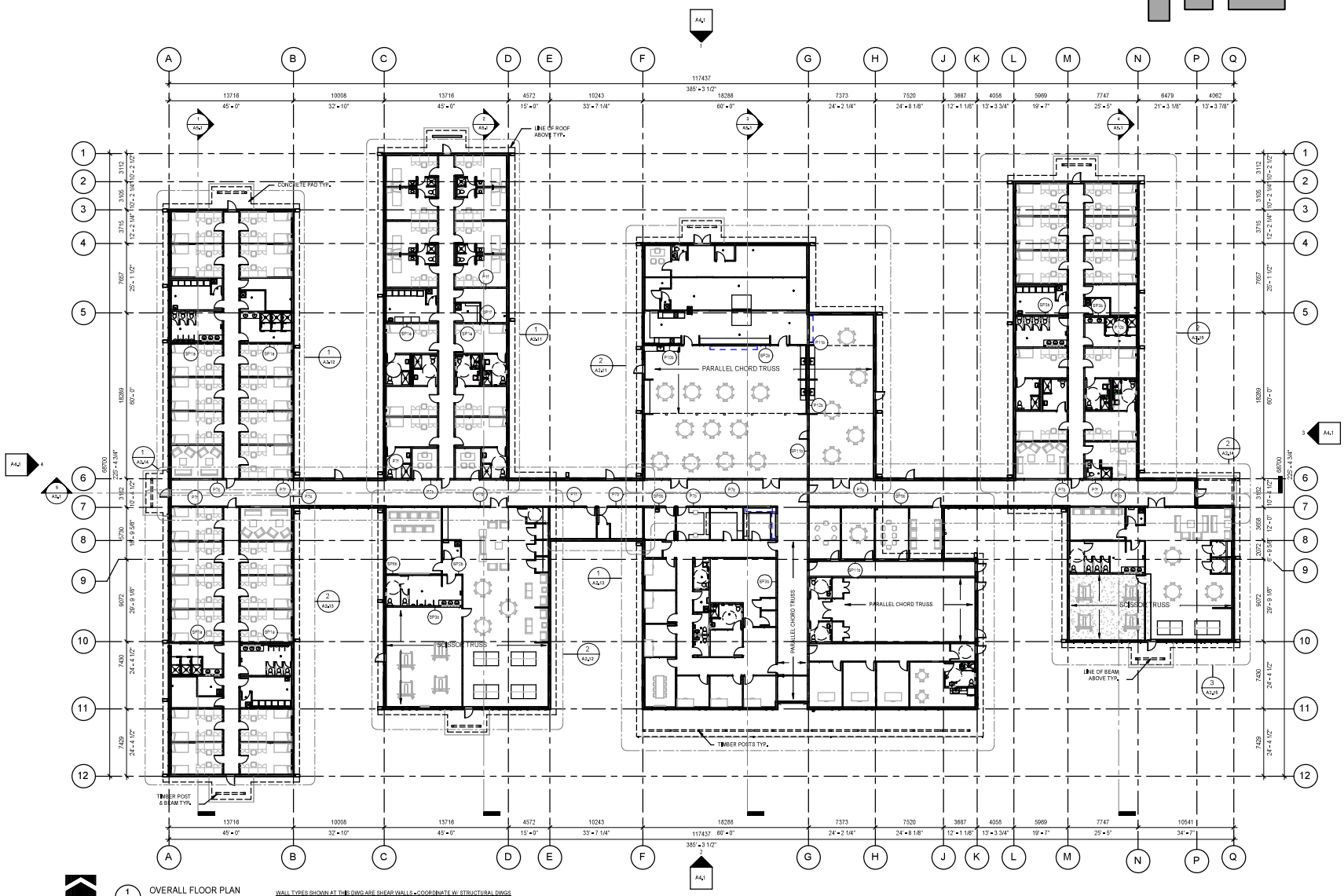


FIRE-SUPPRESSION POND
APPROXIMATELY 50,000 US GALLONS
POND DEPTH APROX. 9'-0" DEEP
OR ANY OTHER SIZE WITH VOLUME
OF 6682 CUBIC FT;
MINIMUM 2.0m FROM EDGE OF POND
PROVIDE A FENCED AREA OF A 6FT
BY 12FT FOR DIESEL FIRE PUMP

SEPTIC AND DOMESTIC WATER TANKS
EACH NEED TO BE 4237 CU FT OR
ABOUT 120,000LITERS FOR A WEEK OF
STORAGE

GOLDEN WILLOW
SALIX ALBA 'VITELLINA'

COLUMNAR WHITE PINE
PINUS STROBUS 'FASTIGIATA'

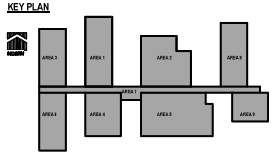


NORTH

1 A2.1 OVERALL FLOOR PLAN
SCALE: 1 : 200

WALL TYPES SHOWN AT THIS DWG ARE SHEAR WALLS - COORDINATE W/ STRUCTURAL DWGS

KEY PLAN



MES ARCHITECTURE

MES ARCHITECTURE LTD.
PERMIT No. AC 15773
ISSUED PURSUANT TO THE
ARCHITECTS ACT OF ALBERTA

List of Consultants

Structural:
Mechanical:
Electrical:
Civil: ZaKo Consulting
Landscape:

MELEWKA STRUCTURES & DESIGN
Melewka Structures & Design
SMOKY LAKE, ALBERTA

METIS NATIONS OF ALBERTA COMMUNITY RECOVERY CENTRE

Issues:
Issued for Pricing
Issued for Development Permit
Issued for Building Permit

Revisions
1 FOR REVIEW 24-05-17

OVERALL FLOOR PLAN

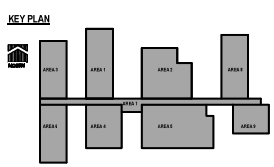
Project number	MNA-001
Date	2024.06.19
Drawn by	DJ
Checked by	Checker

DO NOT SCALE DRAWINGS

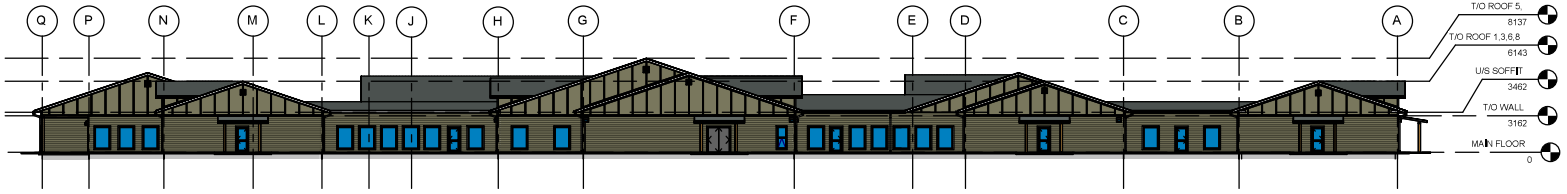
A2.1

2024-05-19 10:58:36 AM

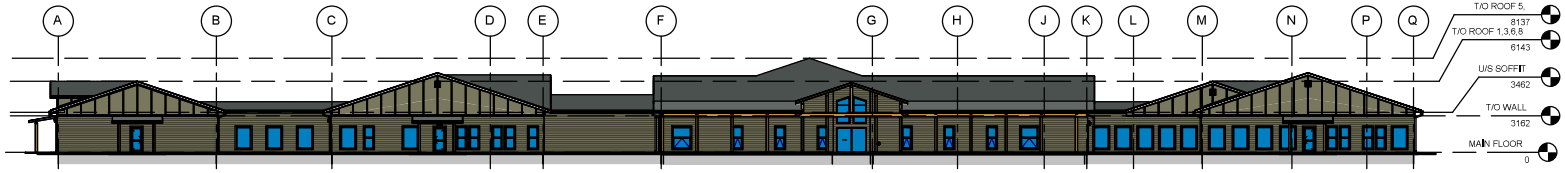
KEY PLAN



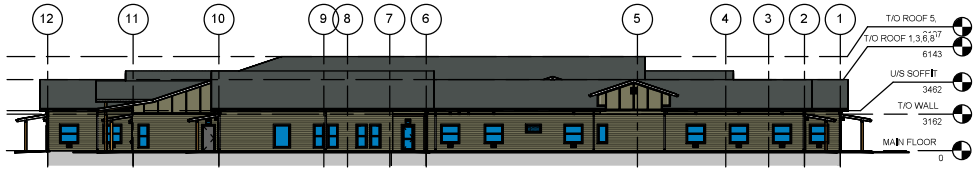
MES ARCHITECTURE



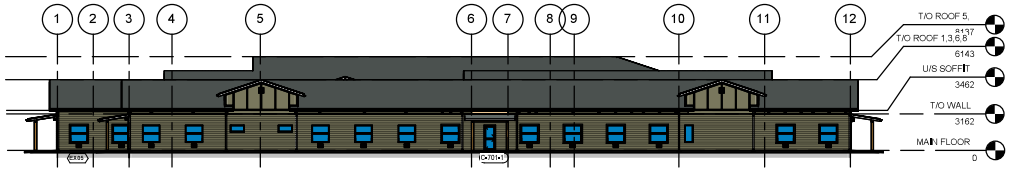
1 A4.1 BLDG NORTH ELEVATION
SCALE: 1 : 200



2 A4.1 BLDG SOUTH ELEVATION
SCALE: 1 : 200



3 A4.1 BLDG EAST ELEVATION
SCALE: 1 : 200



4 A4.1 BLDG WEST ELEVATION
SCALE: 1 : 200

List of Consultants

Structural:
Mechanical:
Electrical:
Civil: ZaKo Consulting
Landscape:

MELEWKA STRUCTURES & DESIGN
Melewka Structures & Design
SMOKY LAKE, ALBERTA

METIS NATIONS OF ALBERTA COMMUNITY RECOVERY CENTRE

Issues:
Issued for Pricing
Issued for Development Permit
Issued for Building Permit

Revisions
1 FOR REVIEW 24-05-17

BUILDING ELEVATIONS

Project number	MNA-001
Date	2024.06.19
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A4.1

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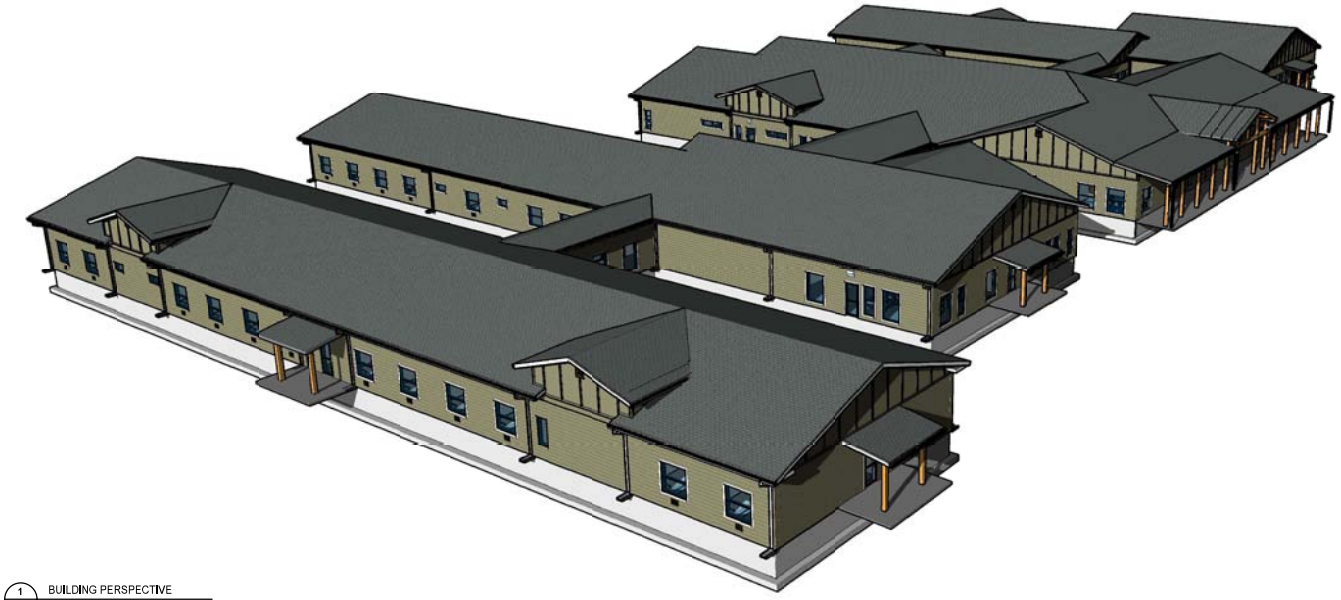

1 M-2 BUILDING PERSPECTIVE
SCALE:

2 M-2 BUILDING PERSPECTIVE
SCALE:

MES ARCHITECTURE

MES ARCHITECTURE LTD.
PERMIT No. AC 15773
ISSUED PURSUANT TO THE
ARCHITECTS ACT OF ALBERTA

List of Consultants

Structural:
Mechanical:
Electrical:
Civil: ZaKo Consulting
Landscape:

MELEWKA STRUCTURES & DESIGN
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SMOKY LAKE, ALBERTA

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Revisions
1 FOR REVIEW 24-05-17

BUILDING PERSPECTIVES

Project number	MNA-001
Date	2024.06.19
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A4.2

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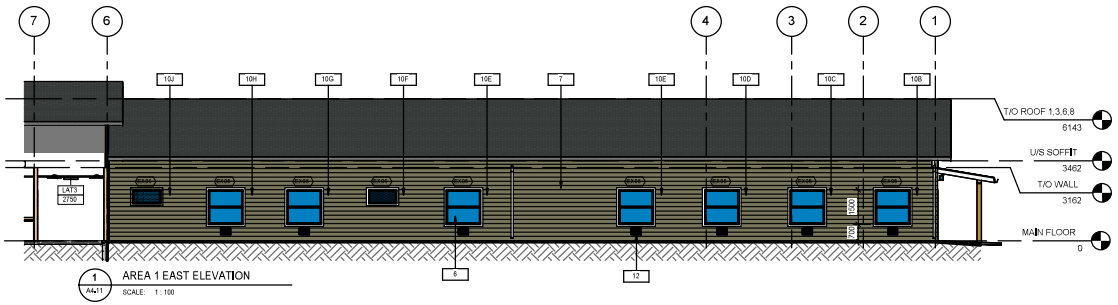

1 A4.11 AREA 1 EAST ELEVATION
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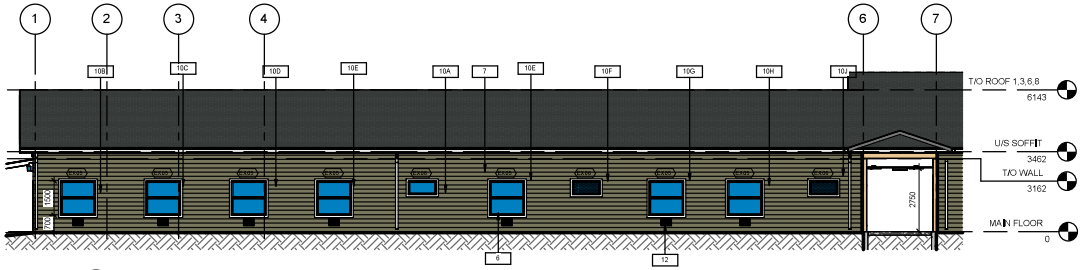
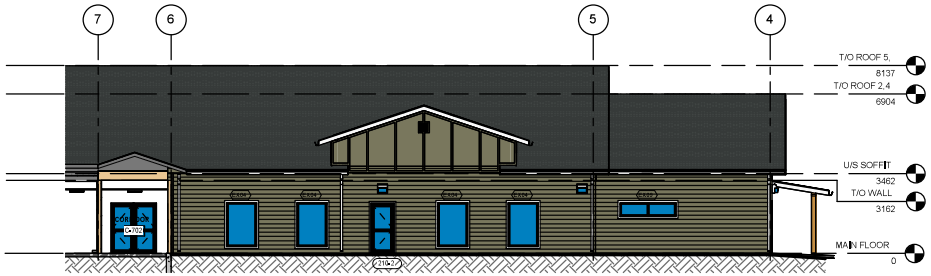


2 A4.11 AREA 1 WEST ELEVATION
SCALE: 1 : 100

4 A4.11 AREA 2 WEST ELEVATION
SCALE: 1 : 100



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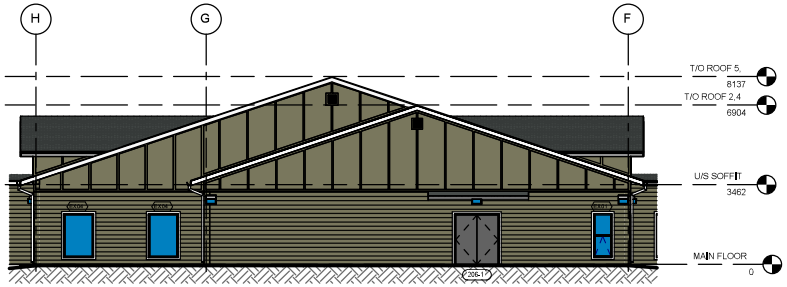
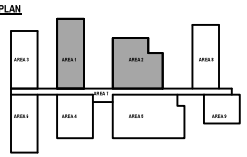
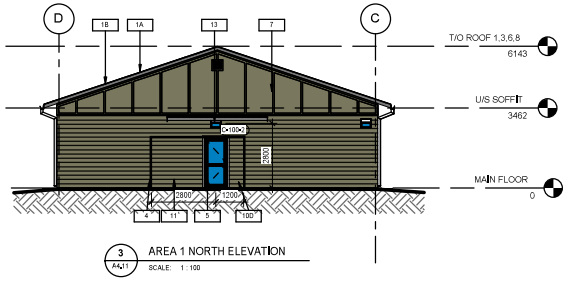


6 A4.11 AREA 2 NORTH ELEVATION
SCALE: 1 : 100

KEY PLAN





3 A4.11 AREA 1 NORTH ELEVATION
SCALE: 1 : 100

KEYNOTE LEGEND	
KEYNOTE NO.	KEYNOTE TEXT
1A	OPTION 1 SLOPED ASPHALT SHINGLE ROOF - COLOUR CASTLE GREY OR SIMILAR
1B	OPTION 2 SLOPED PRE-FINISHED STANDING SEAM METAL ROOF - COLOUR DARK GREY
2	PRE-FINISHED METAL GUTTER AND DOWNSPOUT - COLOUR WHITE
3A	184mm FIBRE CEMENT SMOOTH FASCIA - COLOUR WHITE
3B	
4	PREFINISHED METAL FLASHING - COLOUR WHITE
5	INSULATED HOLLOW METAL DOOR AND FRAME - COLOUR BLACK
6	BLACK ANODIZED ALLUMINUM WINDOW C/W INSULATED TRIPLE GLAZED ARGON FILLED GLASS UNIT
7	FIBER CEMENT HORIZONTAL LAP SIDING - COLOUR MUDFLATS GREEN OR SIMILAR
8A	
8B	
10A	
10B	
10C	
10D	
10E	
10F	
10G	
10H	
10J	
11	SIAMESE CONNECTION - SEE MECHANICAL
12	MECHANICAL EQUIPMENT - SEE MECHANICAL
13	EXTERIOR LIGHT FIXTURE - SEE ELECTRICAL

MES ARCHITECTURE

List of Consultants

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SMOKY LAKE, ALBERTA

METIS NATIONS OF ALBERTA COMMUNITY RECOVERY CENTRE

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Revisions
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AREA 1 & 2 BUILDING ELEVATIONS

Project number	MNA-001
Date	2024.06.19
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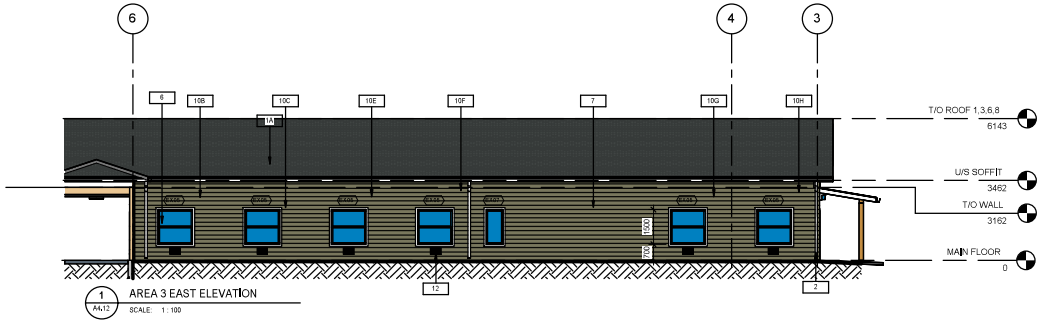
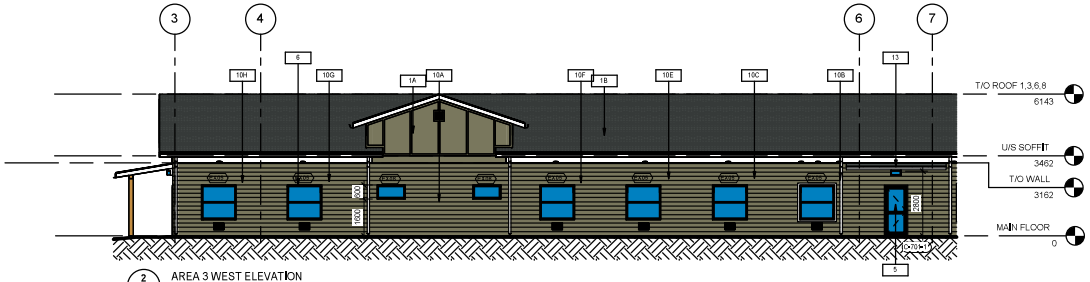


1 A4.12 AREA 3 EAST ELEVATION
SCALE: 1 : 100



2 A4.12 AREA 3 WEST ELEVATION
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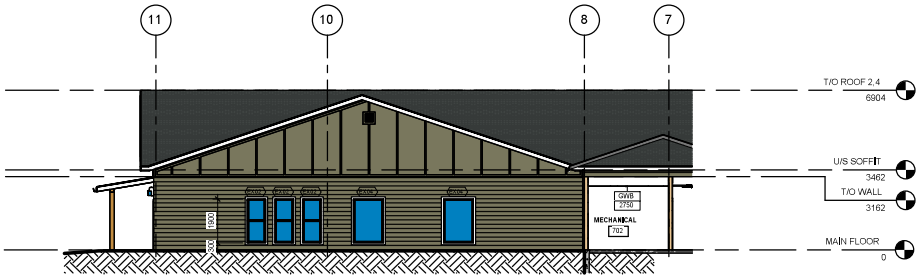
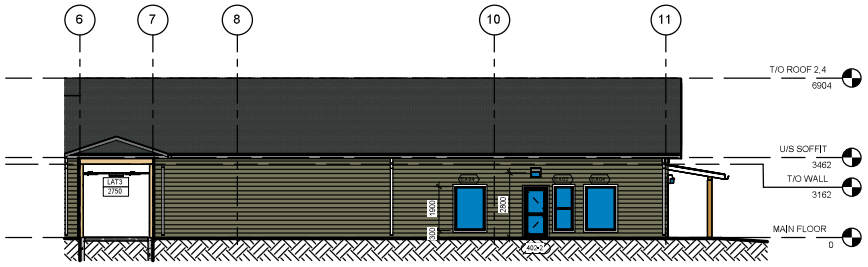
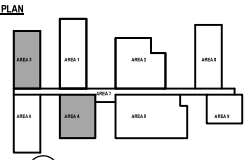


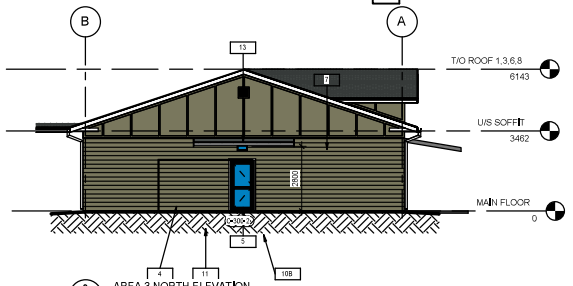
4 A4.12 AREA 4 - EAST ELEVATION
SCALE: 1 : 100



5 A4.12 AREA 4 WEST ELEVATION
SCALE: 1 : 100

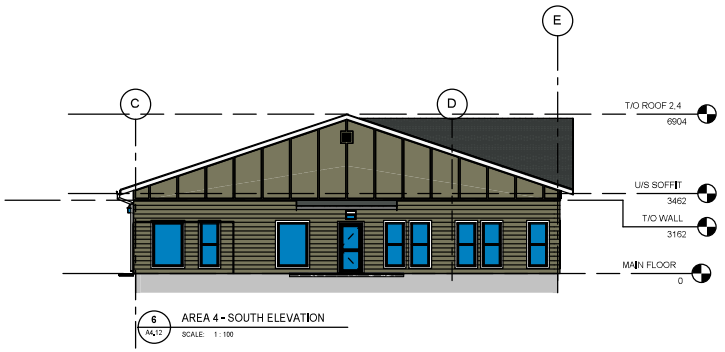
KEY PLAN





3 A4.12 AREA 3 NORTH ELEVATION
SCALE: 1 : 100

KEYNOTE LEGEND	
KEYNOTE NO.	KEYNOTE TEXT
1A	OPTION 1 SLOPED ASPHALT SHINGLE ROOF - COLOUR CASTLE GREY OR SIMILAR
1B	OPTION 2 SLOPED PRE-FINISHED STANDING SEAM METAL ROOF - COLOUR DARK GREY
2	PRE-FINISHED METAL GUTTER AND DOWNSPOUT - COLOUR WHITE
3A	184mm FIBRE CEMENT SMOOTH FASCIA - COLOUR WHITE
3B	
4	PREFINISHED METAL FLASHING - COLOUR WHITE
5	INSULATED HOLLOW METAL DOOR AND FRAME - COLOUR BLACK
6	BLACK ANODIZED ALLUMINUM WINDOW C/W INSULATED TRIPLE GLAZED ARGON FILLED GLASS UNIT
7	FIBER CEMENT HORIZONTAL LAP SIDING - COLOUR MUDFLATS GREEN OR SIMILAR
8A	
8B	
10A	
10B	
10C	
10D	
10E	
10F	
10G	
10H	
10J	
11	SIAMESE CONNECTION - SEE MECHANICAL
12	MECHANICAL EQUIPMENT - SEE MECHANICAL
13	EXTERIOR LIGHT FIXTURE - SEE ELECTRICAL



6 A4.12 AREA 4 - SOUTH ELEVATION
SCALE: 1 : 100

MES ARCHITECTURE

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List of Consultants

Structural:	
Mechanical:	
Electrical:	
Civil:	ZaKo Consulting
Landscape:	

MELEWKA STRUCTURES & DESIGN
Melewka Structures & Design
SMOKY LAKE, ALBERTA

METIS NATIONS OF ALBERTA COMMUNITY RECOVERY CENTRE

Issues:
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Revisions
1 FOR REVIEW 24-05-17

AREA 3 & 4 BUILDING ELEVATIONS

Project number	MNA-001
Date	2024.06.19
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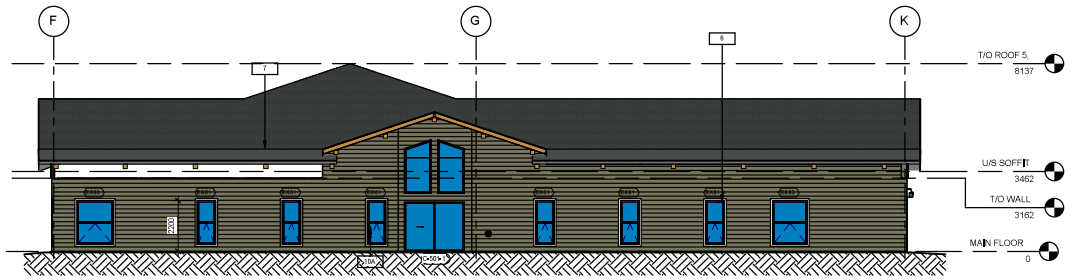

1 A4.13 AREA 5 - SOUTH ELEVATION
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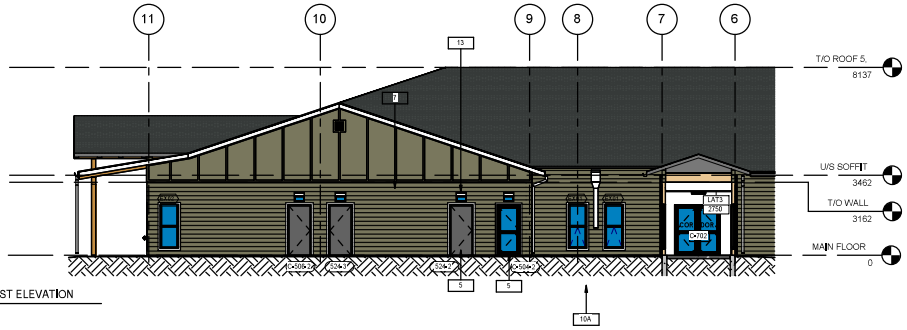

2 A4.13 AREA 5 - EAST ELEVATION
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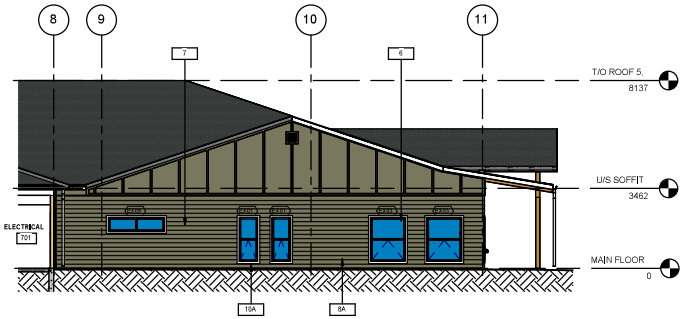

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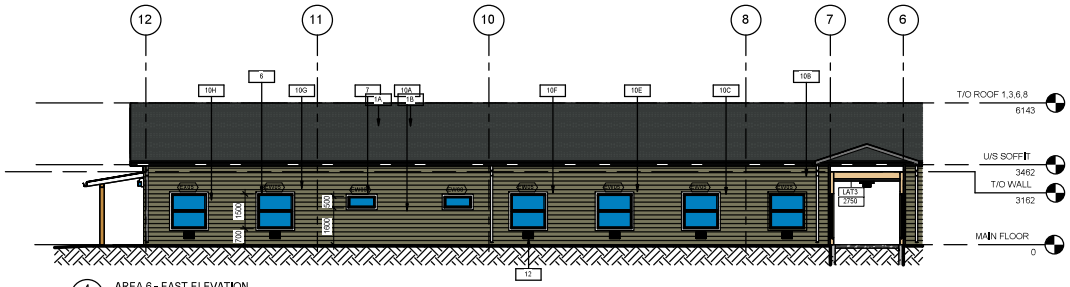

4 A4.13 AREA 6 - EAST ELEVATION
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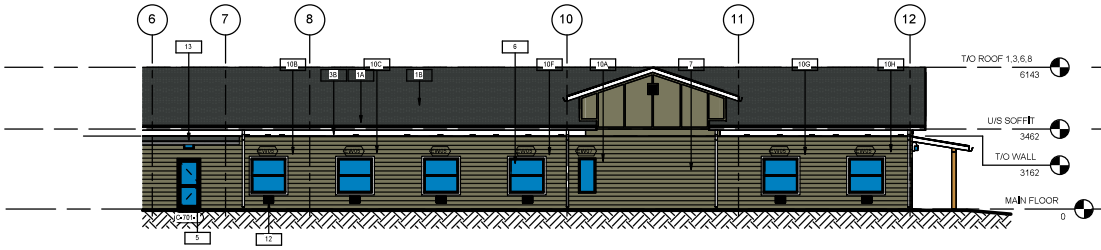
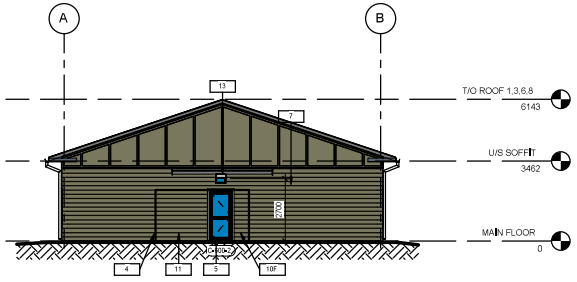
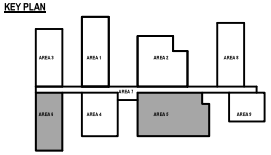


5 A4.13 AREA 6 - WEST ELEVATION
SCALE: 1 : 100



6 A4.13 AREA 6 - SOUTH ELEVATION
SCALE: 1 : 100

KEY PLAN



KEYNOTE LEGEND

KEYNOTE NO.	KEYNOTE TEXT
1A	OPTION 1 SLOPED ASPHALT SHINGLE ROOF - COLOUR CASTLE GREY OR SIMILAR
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2	PRE-FINISHED METAL GUTTER AND DOWNSPOUT - COLOUR WHITE
3A	184mm FIBRE CEMENT SMOOTH FASCIA - COLOUR WHITE
3B	
4	PREFINISHED METAL FLASHING - COLOUR WHITE
5	INSULATED HOLLOW METAL DOOR AND FRAME - COLOUR BLACK
6	BLACK ANODIZED ALLUMINUM WINDOW C/W INSULATED TRIPLE GLAZED ARGON FILLED GLASS UNIT
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8B	
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10B	
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MES ARCHITECTURE

MES ARCHITECTURE LTD.
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MELEWKA STRUCTURES & DESIGN
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SMOKY LAKE, ALBERTA

METIS NATIONS OF ALBERTA COMMUNITY RECOVERY CENTRE

Issues:
Issued for Pricing
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Revisions
1 FOR REVIEW 24-05-17

AREA 5 & 6 BUILDING ELEVATIONS

Project number	MNA-001
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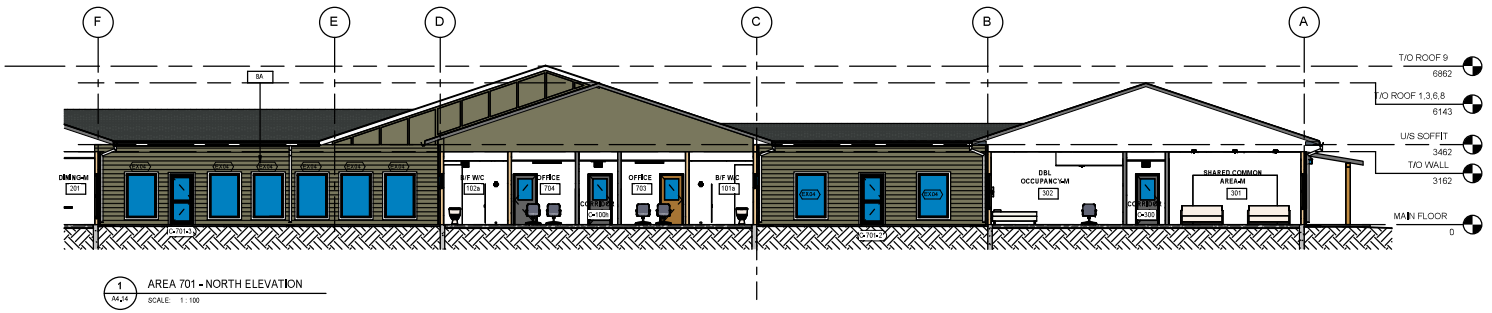

1 AREA 701 - NORTH ELEVATION
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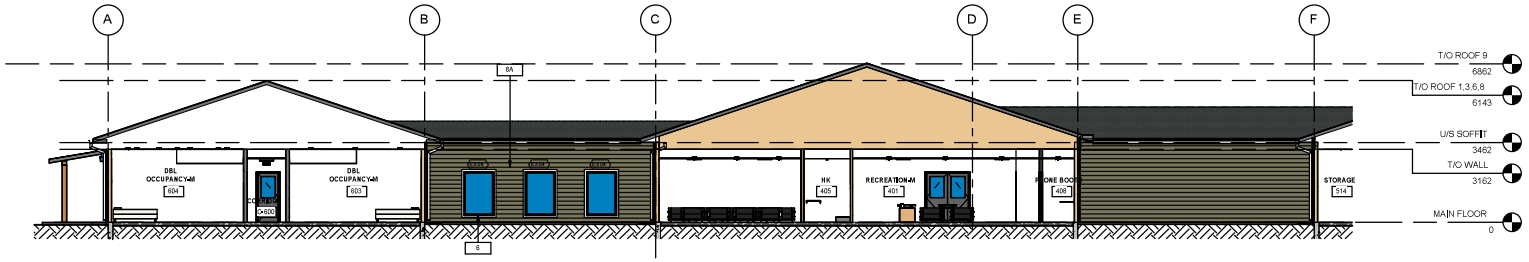

2 AREA 701 - SOUTH ELEVATION
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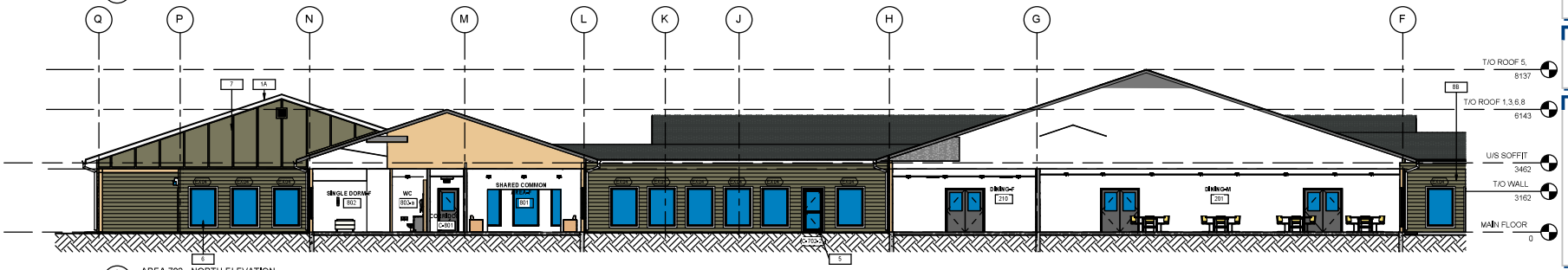

3 AREA 702 - NORTH ELEVATION
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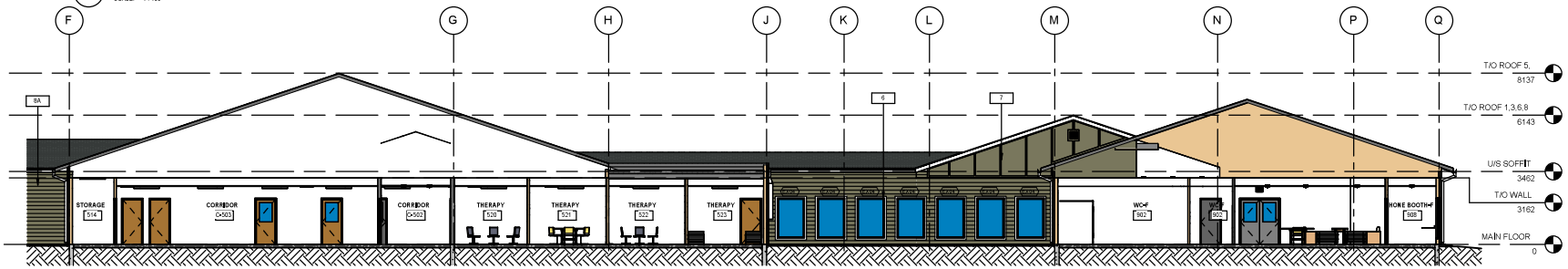
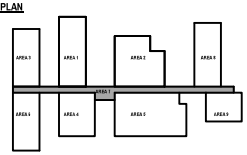


4 AREA 702 - SOUTH ELEVATION
A4.14 SCALE: 1 : 100

KEY PLAN



MES ARCHITECTURE

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Structural:
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Electrical:
Civil: ZaKo Consulting
Landscape:

MELEWKA STRUCTURES & DESIGN
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SMOKY LAKE, ALBERTA

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Revisions
1 FOR REVIEW 24-05-17

AREA 7 BUILDING ELEVATIONS

Project number MNA-001
Date 2024.06.19
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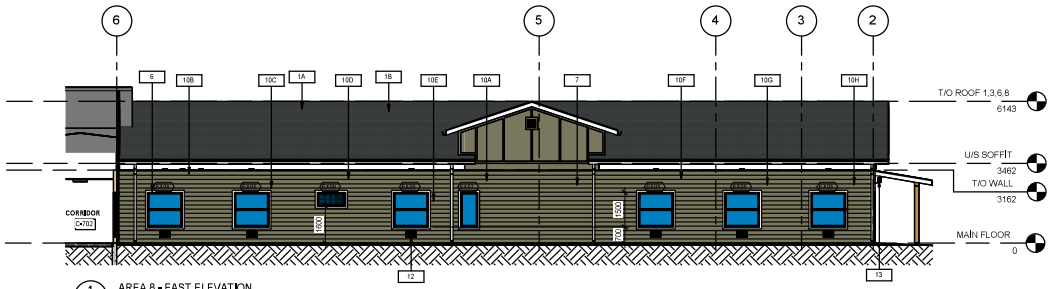
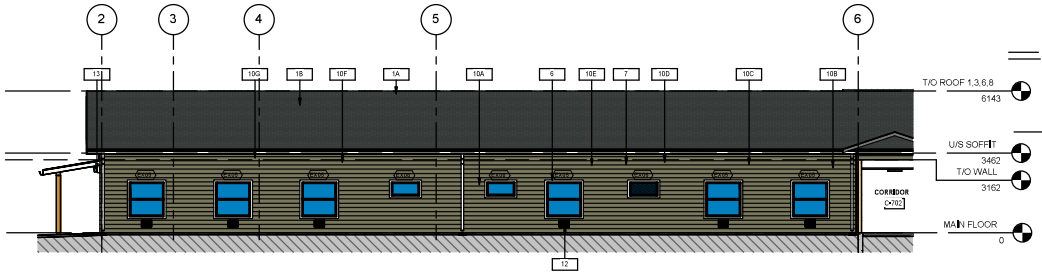
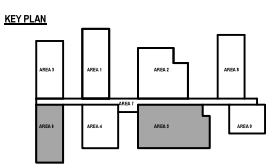


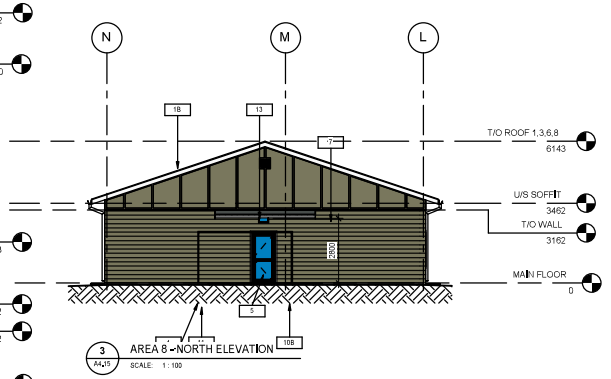
1 A4.15 AREA 8 - EAST ELEVATION
SCALE: 1 : 100



2 A4.15 AREA 8 - WEST ELEVATION
SCALE: 1 : 100

KEY PLAN





3 A4.15 AREA 8 - NORTH ELEVATION
SCALE: 1 : 100

KEYNOTE LEGEND	
KEYNOTE NO.	KEYNOTE TEXT
1A	OPTION 1 SLOPED ASPHALT SHINGLE ROOF - COLOUR CASTLE GREY OR SIMILAR
1B	OPTION 2 SLOPED PRE-FINISHED STANDING SEAM METAL ROOF - COLOUR DARK GREY
2	PRE-FINISHED METAL GUTTER AND DOWNSPOUT - COLOUR WHITE
3A	184mm FIBRE CEMENT SMOOTH FASCIA - COLOUR WHITE
3B	
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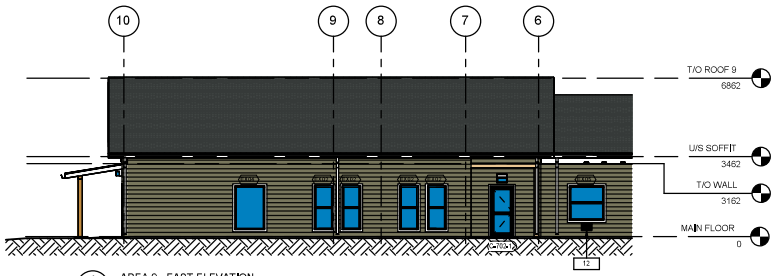
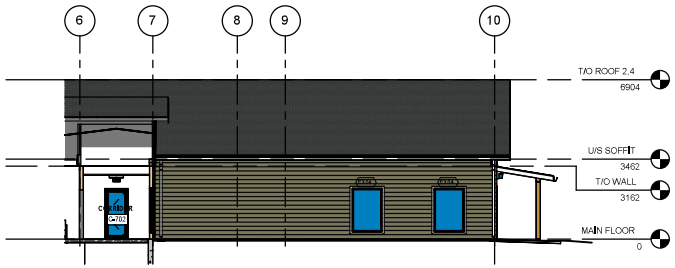
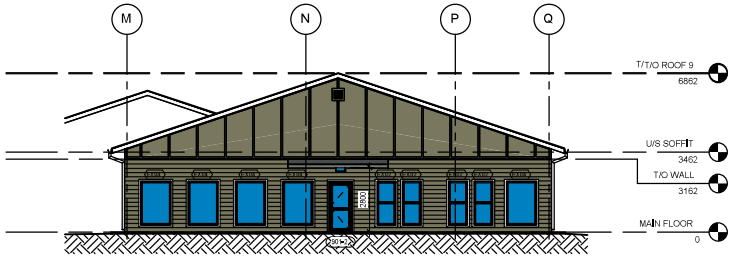
11	SIAMESE CONNECTION - SEE MECHANICAL
12	MECHANICAL EQUIPMENT - SEE MECHANICAL
13	EXTERIOR LIGHT FIXTURE - SEE ELECTRICAL



4 A4.15 AREA 9 - EAST ELEVATION
SCALE: 1 : 100



5 A4.15 AREA 9 - WEST ELEVATION
SCALE: 1 : 100



6 A4.15 AREA 9 - SOUTH ELEVATION
SCALE: 1 : 100

MES ARCHITECTURE

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Landscape:	

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Melewka Structures & Design
SMOKY LAKE, ALBERTA

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Revisions
1 FOR REVIEW 24-05-17

AREA 8 & 9 BUILDING ELEVATIONS

Project number	MNA-001
Date	2024.06.19
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A4.15

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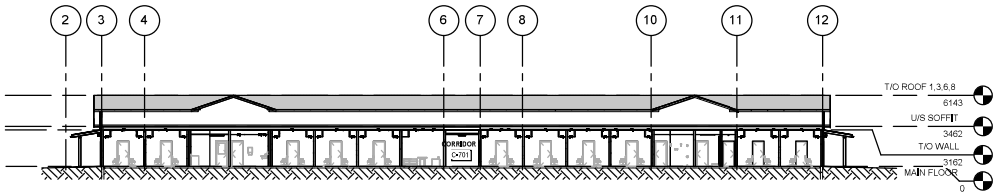

1 A5.1 BUILDING SECTION 1
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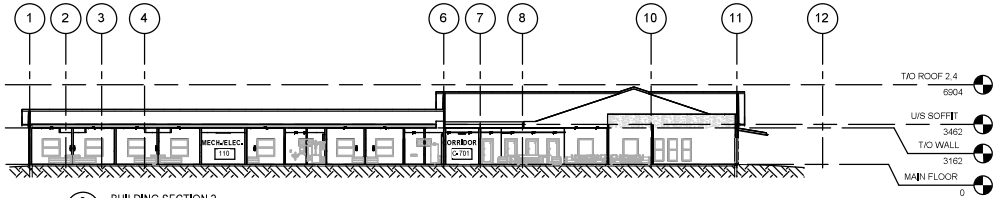

2 A5.1 BUILDING SECTION 2
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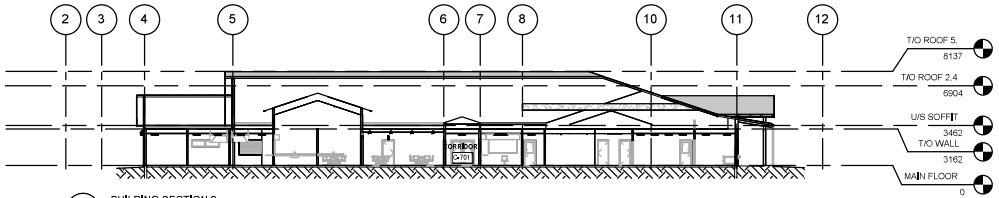

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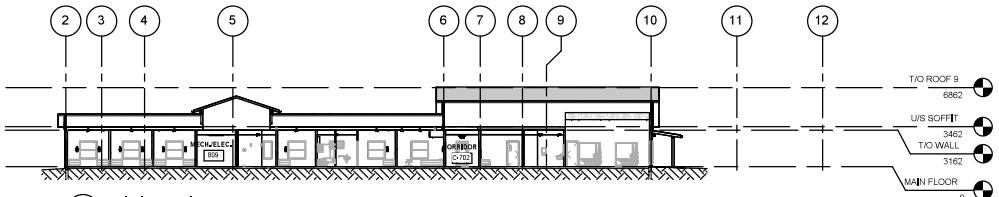

4 A5.1 BUILDING SECTION 4
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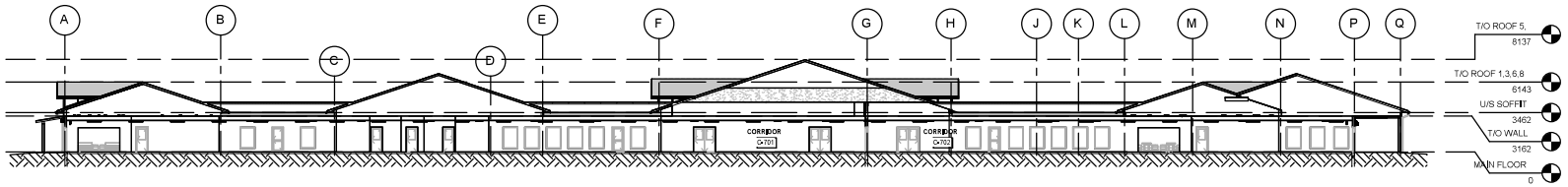

5 A5.1 BUILDING SECTION 5
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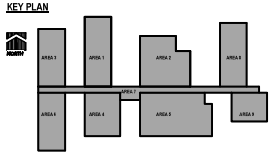
KEY PLAN



MES ARCHITECTURE

List of Consultants

Structural:	
Mechanical:	
Electrical:	
Civil:	ZaKo Consulting
Landscape:	

MELEWKA STRUCTURES & DESIGN

Melewka Structures & Design

SMOKY LAKE, ALBERTA

METIS NATIONS OF ALBERTA COMMUNITY RECOVERY CENTRE

Issues:
- Issued for Pricing
- Issued for Development Permit
- Issued for Building Permit

Revisions

1	FOR REVIEW	24-05-17

OVERALL BUILDING SECTIONS

Project number	MNA-001
Date	2024.06.19
Drawn by	Author
Checked by	Checker

DO NOT SCALE DRAWINGS

A5.1

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GENERAL NOTES:

1. DESIGN, MATERIAL AND WORKMANSHIP SHALL CONFORM TO THE LATEST EDITION OF NATIONAL BUILDING CODE - 2019 ALBERTA EDITION (NBC (AE)).
2. REFER TO LIST OF AUTHORITIES/ CODES BELOW.
3. STRUCTURAL DRAWINGS SHALL BE READ IN CONJUNCTION WITH THE SPECIFICATIONS AND OTHER CONSULTANT'S DRAWINGS (ARCHITECTURAL, MECHANICAL, ELECTRICAL) AND SUPPLIERS SHOP DRAWINGS. WHERE DISCREPANCIES EXIST BETWEEN STRUCTURAL AND OTHER DRAWINGS, THE CONTRACTOR SHALL NOTIFY THE STRUCTURAL ENGINEER AND ARCHITECT IMMEDIATELY.
4. IF CONDITIONS ENCOUNTERED DURING CONSTRUCTION DIFFER FROM WHAT IS SHOWN ON THE CONTRACT DRAWINGS, THE STRUCTURAL ENGINEER SHALL BE NOTIFIED IMMEDIATELY AND WORK SHALL NOT PROGRESS UNTIL ALL PROBLEMS ARE RESOLVED TO THE SATISFACTION OF THE STRUCTURAL ENGINEER.
5. FOR DIMENSIONS NOT SHOWN ON STRUCTURAL DRAWINGS, REFER TO ARCHITECTURAL DRAWINGS.
6. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND ELEVATIONS RELATING TO THE EXISTING CONDITIONS BY CONDUCTING FIELD SURVEYS AND TAKING MEASUREMENTS PRIOR TO COMMENCING CONSTRUCTION.
7. THE CONTRACTOR SHALL ENSURE THAT ALL CONSTRUCTION METHODS TO BE USED WILL NOT CAUSE DAMAGE TO EXISTING BUILDINGS, UTILITIES, OR OTHER PROPERTY PARTICULARLY DURING EXCAVATION.
8. THE CONTRACTOR SHALL BE SOLE RESPONSIBLE FOR JOBSITE SAFETY AND COMPLYING WITH ALL HEALTH AND SAFETY PRECAUTIONS AS REQUIRED BY ANY REGULATORY AGENCY. IN PERFORMING CONSTRUCTION VISITS TO THE JOBSITE, THE STRUCTURAL ENGINEER WILL HAVE NO CONTROL OVER, NOR RESPONSIBILITY FOR THE CONTRACTOR'S MEANS, METHODS, SEQUENCES, TECHNIQUES OR PROCEDURES IN PERFORMING THE WORK.
9. TEMPORARY SUPPORTS REQUIRED FOR THE STABILITY OF STRUCTURE DURING ALL CONSTRUCTION STAGES SHALL BE DESIGNED, FURNISHED AND INSTALLED BY THE CONTRACTOR.
10. THE CONTRACTOR SHALL TAKE INTO ACCOUNT COLD WEATHER CONSTRUCTION AND THE EFFECTS OF THE THERMAL MOVEMENTS DURING CONSTRUCTION SCHEDULE.
11. THESE DRAWINGS ASSUME THAT THE WORK DEPICTED WILL BE PERFORMED BY AN EXPERIENCED CONTRACTOR AND/OR WORKERS WHO HAVE A WORKING KNOWLEDGE OF THE APPLICABLE CODE STANDARDS AND REQUIREMENTS AND OF INDUSTRY ACCEPTED STANDARD GOOD PRACTICE. IT IS UNDERSTOOD THAT THE CONTRACTOR WILL USE INDUSTRY ACCEPTED STANDARD GOOD PRACTICE FOR ALL MISCELLANEOUS WORK NOT EXPLICITLY SHOWN.
12. DESIGN OF NON-PRIMARY STRUCTURAL ITEMS, SUCH AS STAIRS, RAILINGS, NON-STRUCTURAL WALLS AND PREFABRICATED STRUCTURAL ITEMS, SUCH AS FLOOR AND ROOF TRUSSES, ARE NOT INCLUDED AND ARE TO BE PROVIDED BY OTHERS UNLESS SPECIFICALLY NOTED ON THESE DRAWINGS.
13. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE STRUCTURAL INSPECTIONS WITH THE ENGINEER. ENGINEER REQUIRES AT LEAST 48 HOURS NOTICE PRIOR TO ALL INSPECTIONS.

LIST OF AUTHORITIES/ CODES:

1. GENERAL:

1.1. NATIONAL BUILDING CODE – 2019 ALBERTA EDITION.

2. CONCRETE & REINFORCING STEEL:

2.1. CAN/CSA A23.1 - 19 CONCRETE MATERIALS AND METHODS OF CONCRETE CONSTRUCTION.
2.2. CAN/CSA A23.2 - 19 TEST METHODS AND STANDARD PRACTICES FOR CONCRETE.
2.3. CAN/CSA A23.3 - 19 DESIGN OF REINFORCED CONCRETE MEMBERS.
2.4. CSA W186-M1990 (R2016) - WELDING OF REINFORCING BARS.
2.5. CSA 269 -16 FALSEWORK AND FRAMEWORK.
2.6. CSA G30.18 - (R2019) CARBON STEEL BARS FOR CONCRETE REINFORCEMENT.
2.7. CSA A283-2019 - QUALIFICATION CODE FOR CONCRETE TESTING LABORATORIES.
2.8. ASTM C873/C873M-15 - STANDARD TEST METHOD FOR COMPRESSIVE STRENGTH OF CONCRETE CYLINDERS CAST IN PLACE IN CYLINDRICAL MOLDS.

3. WOOD:

2.1. NATIONAL LUMBER GRADES AUTHORITY (NLGA).
2.2. CANADIAN WOOD COUNCIL (CWC)/ WOOD DESIGN MANUAL 2017.
2.3. CSA O86 -19 CONSOLIDATION - ENGINEERING DESIGN IN WOOD.
2.4. CSA O141- 05 (R2014) SOFTWOOD LUMBER.
2.5. CAN/CSA O122 - 16 STRUCTURAL GLUED - LAMINATED TIMBER.
2.6. CAN/CSA O80 - 15 WOOD PRESERVATION.
2.7. CSA O151 - 17 CANADIAN SOFTWOOD PLYWOOD.

SITE INSPECTION REPORTS & TESTING

1. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF THE START OF CONSTRUCTION TO FACILITATE FIELD REVIEWS BY THE STRUCTURAL ENGINEER.
2. THIRD PARTY INSPECTION AND TESTING REPORTS ARE TO BE SUPPLIED TO THE STRUCTURAL ENGINEER BY THE GENERAL CONTRACTOR FOR THE FOLLOWING:
   2.1. SOIL BEARING CAPACITY FOR ALL FOOTINGS. REINFORCING STEEL PLACEMENT
   2.2. CONCRETE CYLINDER TEST REPORTS FOR ALL STRUCTURAL CONCRETE. (FOOTINGS, FOUNDATION WALLS, SLAB ON GRADE, STRUCTURAL SLABS, CONCRETE ON STEEL DECK).
   2.3. BACKFILL COMPACTION REPORTS.

SHOP DRAWINGS

1. THE CONTRACTOR SHALL FURNISH SHOP DRAWINGS TO THE STRUCTURAL ENGINEER, STAMPED BY A PROFESSIONAL ENGINEER LICENSED IN THE PROVINCE OF ALBERTA:
   1.1. REINFORCING STEEL PLACING DRAWINGS AND BAR LISTS.
   1.2. ROOF TRUSS JOIST DESIGN CALCULATIONS AND ERECTION DRAWINGS.
   1.3. ROOF DECK PLACEMENT & DETAILS.

SHORING NOTES:

1. SHORING OF EXCAVATION AND EXISTING STRUCTURE ARE NOT COVERED ON THE SCOPE OF WORK OF TWS ENGINEERING LTD. AND SHALL BE DESIGNED BY OTHERS.
2. SHORING DESIGN SHALL BE BASED ON THE RECOMMENDATION PROVIDED ON THE GEOTECHNICAL REPORT AND SHALL BE BASED ON STANDARDS OF THE GOVERNING AUTHORITY.
3. SHORING CONTRACTOR SHALL ESTABLISH THE EXTENT AND LOCATION OF ANY UNDERGROUND UTILITY LINES WHERE POSSIBLE INTERFERENCE WITH EXCAVATION / SHORING OPERATIONS ARE POSSIBLE TO OCCUR.

DESIGN LOADS:

1. ROOF:
   A. SNOW
      Ss: 3.0 kPa
      Sr: 0.1 kPa
   B. RAIN
      24 HOUR RAINFALL: 108 mm
   C. DEAD LOAD: SELF WEIGHT
2. FLOORS:
   A. MAIN FLOOR
      LIVE LOAD: 4.8 kPa (COMMERCIAL)
      DEAD LOAD: 1.0 kPa + SELF WEIGHT

      SPECIFIED LIVE LOAD HAVE BEEN REDUCED WHERE APPROPRIATE AND IN ACCORDANCE WITH CLAUSE 4.1.5.9 ABC
3. LATERAL LOADS:
   A. WIND LOADS
      Q50: 0.96 kPA
      Q10: 0.74 kPA
4. SEISMIC:
   SPECTRAL RESPONSE: FROM ABC, DIV. B, APPENDIX C.

FOUNDATION & GEOTECHNICAL NOTES:

1. FOUNDATION DESIGN IS BASED ON THE FOLLOWING GEOTECHNICAL REPORT:

   BY: SHELBY ENGINEERING LTD.
   REPORT TITLE: PRELIMINARY FINDINGS AND FOUNDATION RECOMMENDATIONS

   FILE NO: 1-24149
   DATE: NOVEMBER 6, 2023

   PROJECT TITLE: TSUU T'INA - 75 BED FACILITY
   REDWOOD MEADOWS DR AND HIGHWAY 22
   TSUU T'INA NATION, AB
2. THE CONTRACTOR SHALL ENSURE THAT THE REQUIREMENTS OUTLINED IN THE GEOTECHNICAL REPORT ARE READ AND UNDERSTOOD PRIOR TO COMMENCING THE FOUNDATION WORK.
3. ALL FOOTINGS ARE TO BE FOUNDED ON UNDISTURBED NATIVE MATERIALS FREE OF DEBRIS, FROST AND LOOSE MATERIALS.
4. ALL FOOTING BEARING SURFACES SHALL BE REVIEWED AND APPROVED BY THE GEOTECHNICAL ENGINEER PRIOR TO CASTING. ALL FOOTING REINFORCEMENT AND FORMWORK PREPARATIONS SHALL BE REVIEWED BY TWS ENGINEERING LTD. PRIOR TO CASTING.
5. AFTER THE CASTING OF FOOTINGS, THE FOOTING BEARING SURFACES AND ADJACENT SOILS ARE TO BE PROTECTED FROM RAIN, SNOW, GROUNDWATER, FREEZING.
6. SLABS-ON-GRADE BEARING SURFACES SHALL BE REVIEWED AND APPROVED BY THE GEOTECHNICAL ENGINEER PRIOR TO CASTING. ALL SLAB-ON-GRADE REINFORCEMENT SHALL BE REVIEWED BY TWS ENGINEERING LTD. PRIOR TO CASTING.
7. PERIMETER WEEPING TILE PIPING SYSTEM SHALL BE PROVIDED AS PER GEOTECHNICAL REPORT AND MECHANICAL CONSULTANT.
8. ALL FOUNDATION WALLS SHALL BE ADEQUATELY BRACED DURING CONSTRUCTION TO MAINTAIN SAFETY AND STABILITY. BACKFILLING SHALL NOT BE PERMITTED UNTIL FLOOR STRUCTURES ARE COMPLETED AND CONCRETE HAS ACHIEVED 7 DAY STRENGTH.
9. THE GEOTECHNICAL ENGINEER SHALL BE CONSULTED FOR THE REQUIRED FREQUENCY OF MATERIALS AND COMPACTION TESTING REQUIRED FOR ALL BACKFILLING OPERATIONS.

REINFORCING STEEL NOTES:

1. REINFORCING STEEL SHALL BE IN ACCORDANCE WITH CSA G30.18, LATEST EDITION, WITH YIELD STRENGTH OF 400 MPa.
2. ALL DETAILING, BENDING AND PLACING OF REINFORCING STEEL SHALL CONFORM TO CSA STANDARD CAN 3-A23.1-M. LATEST EDITION.
3. ALL CORNERS OF GRADE BEAMS AND FOUNDATION WALLS SHALL HAVE 90 DEGREE REINFORCING BARS MATCHING THE HORIZONTAL WALL STEEL AND MEASURING 900 X 900.
4. ZONE REINFORCING TO HAVE A SPLICE LENGTH OF 47 TIMES BAR DIAMETER, (BASED ON LARGEST BAR SIZE IN CASE OF BARS OF UNEQUAL SIZE).
5. LAP SPLICES OF REINFORCING STEEL IN CONCRETE BEAMS, SLABS AND FOOTINGS SHALL BE ACCORDING TO CAN/CSA 23.3 OR LAP SCHEDULE, UNO. STAGGER SPLICES A MIN OF ONE LAP LENGTH. VERTICAL WALL BARS SHALL BE SPLICED AT OR NEAR FLOOR LINES, SPLICE TOP BARS AT CENTER LINE OF SPAN AND BOTTOM BARS AT THE SUPPORT IN SPANDRELS, BEAMS, GRADE BEAMS, ETC, UNO.
6. TOLERANCES FOR PLACING OF REINFORCING AND FORMWORK SHALL BE IN ACCORDANCE WITH CAN/CSA A23.1:
   LATERAL SPACING OF BARS: ±30mm
   BEAMS & SLABS
   MEMBER 200mm DEEP OR LESS: ±8mm
   MEMBER 200mm DEEP OR GREATER: ±12mm
   MEMBER 600mm DEEP OR GREATER: ± 20mm
7. BAR SUPPORT CHAIRS FOR UNCOATED BARS SHALL BE PLASTIC, PLASTIC-TIPPED FOR AT LEAST THE BOTTOM 25mm, OR PRECAST CONCRETE BLOCKS.
8. BAR SUPPORT CHAIRS SHALL BE SUFFICIENT IN NUMBER, STRENGTH AND STABILITY TO MAINTAIN THE POSITION OF THE REINFORCEMENT WITH THE SPECIFIED TOLERANCES FOR THE FULL LENGTH OF THE REINFORCEMENT. IF SPACER BARS ARE TO BE USED THE SUPPORT THE REINFORCEMENT, THEY SHALL BE NOT LESS THAN 15M.
9. ALL VERTICAL REINFORCEMENT PLACED IN EXTERIOR FOUNDATION WALLS IS TO BE SECURED TO SPECIFIED COVER WITH THE USE OF SUPPORT CHAIRS TO EITHER FORM FACE.
10. WELDING OF DEFORMED REINFORCING BARS SHALL CONFORM TO W186-M1990.
11. NOTIFY TWS ENGINEERING LTD. 48 HOURS MINIMUM PRIOR TO POURING CONCRETE FOR REVIEW OF REINFORCEMENT.

STANDARD LAP & HOOK LENGTHS FOR GRADE 400R REINFORCEMENT						
	25 MPa CONCRETE		30 MPa CONCRETE		35 MPa CONCRETE	
REINFORCING BAR Ø	STRAIGHT TENSION LAP	90° HOOK	STRAIGHT TENSION LAP	90° HOOK	STRAIGHT TENSION LAP	90° HOOK
10M	380mm	200mm	340mm	180mm	315mm	170mm
15M	560mm	300mm	510mm	270mm	485mm	250mm
20M	755mm	400mm	690mm	370mm	640mm	340mm

CAST-IN-PLACE CONCRETE NOTES:

1. CONCRETE MIX DESIGN

CONCRETE MIX DESIGN AS PER CAN/CSA A23.1						
COMPONENT	EXPOSURE CLASS	MIN. SPECIFIED COMPRESSIVE STRENGTH	MAX. WATER TO CEMENT RATIO	AIR ENTRAINMENT (%)	CEMENT TYPE	ALLOWABLE CURING REGIMES
FOUNDATION WALLS, FOOTINGS, CONCRETE PIERS	F-2	30 MPa AT 28 DAYS	0.55	4% - 7%	HS	BASIC
INTERIOR SLAB-ON-GRADE	N	25 MPa AT 28 DAYS	0.55	NONE	GU	BASIC
EXTERIOR PADS, CURBS, APRONS, SIDEWALKS	C-2	32 MPa AT 28 DAYS	0.45	5% - 8%	GU	ADDITIONAL
CURING NOTES (CAN/CSA A23.1) "BASIC" - 3 DAYS AT > 10°C OR FOR THE TIME NECESSARY TO ATTAIN 40% OF THE SPECIFIED STRENGTH. "ADDITIONAL" - 7 DAYS TOTAL AT > 10°C AND FOR THE TIME NECESSARY TO ATTAIN 70% OF THE SPECIFIED						

2. CONCRETE COVER

CONCRETE COVER AS PER CAN/CSA A23.1, TABLE 17			
EXPOSURE CONDITION	EXPOSURE CLASS		
	N, N-F, R3	F-1, F-2, S-1, S-2, S-3, R-1, R-2	C, XL, A-XL, C-1, C-3, A-1, A-2, A3
CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH, INCLUDING FOOTINGS, GRADE BEAMS, PILE CAPS	75 mm	75 mm	75 mm
BEAMS, GIRDERS AND COLUMNS	30 mm *	40 mm	60 mm
SLABS, WALLS, JOISTS, SHELL AND FOLDED PLATES	20 mm *	40 mm	60 mm
* - REFERS ONLY TO CONCRETE THAT WILL BE CONTINUALLY DRY WITHIN THE CONDITIONED SPACE (IE., MEMBERS ENTIRELY WITHIN THE VAPOUR BARRIER OF THE BUILDING ENVELOPE).			

3. CONCRETE MATERIALS AND METHODS OF CONCRETE CONSTRUCTION/TEST METHODS AND STANDARD PRACTICES OF CONCRETE SHALL CONFORM TO THE LATEST EDITION OF CAN/CSA A23.1/A23.2. DESIGN OF REINFORCED CONCRETE MEMBERS ARE BASED ON CAN/CSA A23.3.
4. SAW CUTS FOR SLAB ON GRADE SHALL BE 6mm SLAB DEPTH CUTTING TO BE DONE NOT SOONER THAN 12 HOURS AND NOT LATER THAN 24 HOURS AFTER THE SLAB IS CAST. SAW CUT TO BE FILLED WITH APPROVED BITUMINOUS COMPOUND OR CAULKING.
5. NO MORE THAN 90 MINUTES SHALL ELAPSE BETWEEN CONCRETE BATCHING AND CONCRETE PLACEMENT, UNLESS APPROVED BY THE ENGINEER OR AUTHORIZED TESTING AGENCY.
6. REMOVE ALL DEBRIS FROM FORMS, REINFORCING STEEL AND OTHER EMBEDDED ITEMS PRIOR TO PLACING CONCRETE. CONCRETE SHALL NOT BE DROPPED THROUGH REINFORCING STEEL (WALLS OR COLUMNS) SO AS TO CAUSE A SEGREGATION OF AGGREGATES. UNCONFINED FALL OF CONCRETE SHALL NOT EXCEED 5 FEET.
7. PROVIDE MINIMUM 6 MIL POLY VAPOUR BARRIER BELOW ALL SLAB ON GRADE CONCRETE SLABS UNLESS NOTED OTHERWISE ON DRAWINGS.
8. WHERE VOIDFORM IS INDICATED ON DRAWINGS, USE CARDBOARD SHEARMAT BELOW STRUCTURAL SLABS AND LOW-DENSITY POLYSTYRENE BELOW WALLS AND GRADE BEAMS. 6" VOIDFORM TO BE PROVIDED BELOW ALL CONCRETE SUBGRADE ELEMENTS, INCLUDING WALLS, GRADE BEAMS, STRUCTURAL SLABS, PILE CAPS, AND PILASTERS UNLESS NOTED OTHERWISE.
9. FORMWORK/FALSEWORK
   A. THE DESIGN, FABRICATION, ERECTION, AND USE OF CONCRETE FORMWORK SHALL CONFORM TO THE REQUIREMENTS OF CAN/CSA-S269.3.
   B. FALSEWORK FOR SUSPENDED CONCRETE ELEMENTS SHALL CONFORM TO CSA S269.1.
   C. FALSEWORK SUPPORTING SUSPENDED ELEMENTS (SLABS, BEAMS AND GIRDERS) SHALL NOT BE REMOVED UNTIL CONCRETE HAS REACHED ITS SPECIFIED COMPRESSIVE STRENGTH. THE COMPRESSIVE STRENGTH TEST SHALL BE CONDUCTED WITH FIELD-CURED SAMPLES BY A QUALIFIED TESTING FIRM.
   D. FORMWORK FOR SPECIAL ARCHITECTURAL FINISHES SHALL MEET THE REQUIREMENT OF CSA A23.
8. CONCRETE SAMPLES FOR TESTING
   A. CONCRETE SAMPLES FOR TESTING SHALL BE IN ACCORDANCE WITH CSA A23.2.
   B. ONE (1) STRENGTH TEST SHALL CONSIST OF TEST CYLINDERS FOR EACH 50 m^3 OF CONCRETE, OR PORTIONS OF EACH MIX TYPE OF CONCRETE OR EACH SEPARATE TYPE OF STRUCTURAL ELEMENT IN ANY ONE (1)-DAY'S POUR. FOR CONCRETE WITH SPECIFIED FIFTY-SIX (56) DAY STRENGTH, STRENGTH TEST SHALL CONSIST OF MINIMUM FOUR (4) TEST CYLINDERS. TEST FIRST CYLINDER AT SEVEN (7) DAYS ONE (1) AT TWENTY-EIGHT (28)DAYS AND REMAINING TWO (2) AT 56 DAYS. FOR CONCRETE WITH SPECIFIED TWENTY-EIGHT (28) DAY STRENGTH, STRENGTH TEST SHALL CONSIST OF MINIMUM THREE (3) TEST CYLINDERS. TEST FIRST CYLINDER AT SEVEN (7) DAYS AND REMAINING TWO (2) AT TWENTY-EIGHT (28) DAYS.
   C. ADDITIONAL TEST CYLINDERS SHALL BE TAKEN DURING COLD WEATHER CONCRETING. CURE CYLINDERS ON JOB SITE UNDER SAME CONDITIONS AS CONCRETE WHICH THEY REPRESENT.
9. SHOP DRAWINGS AND SUBMITTALS
   A. REPRODUCTION IN WHOLE OR IN PART OF THE STRUCTURAL DRAWINGS FOR USE AS SHOP DRAWINGS FOR SUBMISSION SHALL NOT BE ACCEPTED.
   B. ANY DEVIATION FROM STRUCTURAL DRAWINGS AND SPECIFICATIONS SHALL BE IDENTIFIED ON THE SHOP DRAWINGS, AND EXPRESS PERMISSION FOR SUCH CHANGES SHALL BE OBTAINED FROM THE ENGINEER.
   C. SHOP DRAWINGS SHALL BE SUBMITTED FOR REVIEW AND MUST BE SEALED BY AN ENGINEER REGISTERED IN THE PROVINCE HAVING JURISDICTION PRIOR TO ANY FABRICATION.
   D. CONCRETE MIX DESIGN INCLUDING SAMPLING AND TESTING OF THE AGGREGATES SHALL BE REVIEWED AND STAMPED FOR COMPLIANCE WITH RESPECTIVE SPECIFICATIONS BY AN INDEPENDENT CSA CERTIFIED AND QUALIFIED CONCRETE TESTING LAB WITH A PERMIT TO PRACTICE IN THE PROVINCE OF ALBERTA. THE TESTING LAB SHALL PROVIDE AN ENGINEERING OPINION THAT THE AGGREGATE AND MIX DESIGN ARE SUITABLE FOR THE INTENDED USE AND ARE EXPECTED TO PERFORM TO SPECIFIED STANDARDS.
   E. SUBMIT PROPOSED MIX DESIGN TO CONSULTANT FOR REVIEW 2 WEEKS PRIOR TO PLACING CONCRETE.
   F. SUBMIT FOR REVIEW REINFORCEMENT PLACING DRAWINGS AND BAR LIST FOR EVERY PORTION OF THE STRUCTURE.

WOOD FRAMING NOTES:

1. WOOD FRAMING, MATERIALS AND CONSTRUCTION SHALL CONFORM TO CSA 086 N.L.G.A. AND CSA 0141.
2. SHEATHING SHALL BE EXTERIOR GRADE SPRUCE PLYWOOD, CHIP BOARD OR ORIENTED STRAND BOARD.
3. NAILING PATTERNS & NAIL LENGTHS SHALL CONFORM TO TABLE 9.23.3.4. AND 9.23.3.5. OF THE NATIONAL BUILDING CODE RESIDENTIAL STANDARDS.
4. PLYWOOD SUB-FLOORING AND SHEATHING SHALL BE EXTERIOR DOUGLAS FIR PLYWOOD CONFORMING TO THE LATEST EDITION OF CSA O121 "DOUGLAS FIR PLYWOOD" UNLESS NOTED OTHERWISE.
5. ALL HORIZONTAL MEMBERS, WALL PLATES, BLOCKING AND FURRING TO BE NO. 2 SPRUCE OR BETTER, CONFORMING TO N.L.G.A. 124-C.
6. ALL BUILT-UP BEAMS, LINTELS, HEADERS, SILL PLATES AND BLOCKING TO BE S-P-F NO. 2 OR BETTER, CONFORMING TO N.L.G.A.124-C.
7. ALL WOOD COLUMNS AND BUILT-UP STUDS TO BE CONTINUOUSLY BLOCKED DOWN TO FOUNDATION WITH WOOD SQUASH BLOCKS MATCHING WALL OR COLUMN WIDTH.
8. PROVIDE TRIPLE STUDS EACH SIDE OF OPENINGS (LINTELS TO BEAR ON TWO STUDS EACH END UNLESS NOTED OTHERWISE ON PLANS.
9. FRAMING LUMBER SHALL BE NEW MATERIAL WITH A MAXIMUM MOISTURE CONTENT OF 15%.
10. ALL WALLS TO BE ADEQUATELY BRACED UNTIL SHEATHING INSTALLED ON WALLS, FLOOR BELOW & STRUCTURE ABOVE.
11. JOIST HANGERS SHALL BE GALVANIZED STEEL AND OF SUFFICIENT CAPACITY TO CARRY THE FULL CAPACITY OF THE JOIST. ROOF TRUSSES AND JOIST AT EXTERIOR PERIMETER TO BE ANCHORED TO WALL SILL PLATE USING "TRIPLE GRIP" FRAMING ANCHORS. NAILS TO BE SPIRAL NAILS.
12. BOTTOM PLATES (SOLE PLATES) RESTING ON CONCRETE OR MASONRY SHALL BE TREATED.
13. BOTTOM PLATE AT THE MAIN FLOOR IS TO BE BOLTED TO THE FOUNDATION WITH A MINIMUM OF Ø16mm x 200mm LG. ANCHOR BOLTS @ 1200mm O.C.
14. DO NOT NOTCH OR DRILL JOISTS OR BEAMS UNO ON PLAN OR G.S.N. WITHOUT PRIOR APPROVAL OF THE STRUCTURAL ENGINEER. DOUBLE UP FLOOR JOISTS AND BLOCKING UNDER WALLS THAT RUN PARALLEL TO THE JOISTS. PROVIDE 50mm (NOMINAL) SOLID BLOCKING BETWEEN JOISTS AT SUPPORTS.
15. ROOF TRUSSES TO BE NO. 2 SPRUCE OR BETTER ACCORDING TO THE REQUIREMENTS OF NBC.
16. SHOP DRAWINGS AND LAYOUT PLANS SHALL BE PROVIDED FOR ALL FLOOR JOIST AND ROOF TRUSSES. ALL DRAWINGS TO BE SEALED BY AN ENGINEER LICENSED TO PRACTICE IN THE PROVINCE HAVING JURISDICTION PRIOR TO FABRICATION.
17. NO SITE MODIFICATIONS TO ANY TRUSSES AND/OR JOISTS ARE TO BE MADE WITHOUT APPROVAL FROM SUPPLIER AND ENGINEER.
18. ALL TRUSS CLIPS AND HOLD DOWNS TO BE PROVIDED BY SUPPLIER UNLESS NOTE OTHERWISE. PROVIDE HURRICANE CLIPS AT ALL TRUSS BEARING LOCATIONS TO RESIST THE REQUIRED UPLIFT CAPACITY AND IN CORRELATION WITH UPLIFT LOADS WHERE PROVIDED IN DRAWINGS.
19. ROOF TRUSS SUPPLIER IS RESPONSIBLE FOR THE DESIGN OF SNOW PILING IN VALLEYS CAUSED BY TRANSITION LOADING UNLESS NOTED OTHERWISE.
20. WOOD BEAM AND WOOD JOIST SUPPLIER IS RESPONSIBLE FOR PROVIDING ALL REQUIRED HANGERS AT BEARING CONNECTION LOCATIONS DESIGNED TO WITHSTAND APPLICABLE LOADING.
21. THE SUPPLIER OF FLOOR JOISTS AND ROOF TRUSSES SHALL INSPECT THE INSTALLATION UPON COMPLETION AND PROVIDE A CERTIFICATE STAMPED BY A PROFESSIONAL ENGINEER CONFIRMING THE INSTALLATION IS IN ACCORDANCE WITH THE APPROVED SHOP DRAWINGS.
22. GLUED LAMINATED (GLULAM) TIMBER MEMBERS SHALL BE SPRUCE PINE, 12c-E FOR COLUMNS AND SPRUCE PINE 20f-E FOR BEAMS.
23. LAMINATED VENEER LUMBER (LVL) MEMBERS SHALL BE 2.0E 2500Fb.

SUB-BASE / SUBGRADE CONSTRUCTION FOR FLOOR SLABS, GRADE BEAMS

1. REMOVE ANY TOP SOIL, LOAMY SOIL, UNSUITABLE FILL AND ALL SOFT SPOTS AND TO BE REPLACED WITH GRANULAR FILL COMPACTED TO 100% SPMDD OR AS RECOMMENDED BY A GEOTECHNICAL ENGINEER TO CONFIRM FOR THE EXTENT AND DEPTH OF UNDERCUTTING.
2. ANY ORGANIC, HIGH PLASTIC SOILS, SLOUGH SOILS AND DELETERIOUS MATERIALS ENCOUNTERED SHALL BE REMOVED DURING SUBGRADE PREPARATION.
3. SUBGRADE FILLS SHOULD BE PLACED IN LAYERS NOT EXCEEDING 150mm COMPACTED THICKNESS.
4. FILL SOILS SHOULD BE PLACED WITHIN 2% OF OPTIMUM MOISTURE CONTENT.

PRE-ENGINEERED WOOD PRODUCT NOTES:

MANUFACTURED BEAMS (PARALLAM, TIMBERSTAND) AND I-JOIST

1. MANUFACTURED BEAMS AND I-JOIST SHALL BE MANUFACTURED IN CONFORMANCE TO CSA-086 AND SHALL BE PROTECTED FROM MOISTURE, HANDLED AND INSTALLED ACCORDING TO MANUFACTURER'S DETAILS AND INSTRUCTIONS.
2. ALL MANUFACTURED BEAMS AND I-JOIST SHOULD HAVE MOISTURE CONTENT OF 12% OR LESS.
3. SHOP DRAWINGS (INDICATING MEMBER SIZES, STRESS GRADES, DESIGN LOADS, RIM MATERIAL, HANGER SIZES, AND POINT LOAD BLOCKING LOCATIONS) SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE PROVINCE OF ALBERTA SHALL BE SUBMITTED TO THE STRUCTURAL ENGINEER OF RECORD PRIOR TO FABRICATION OF THE MEMBERS. FLOOR FRAMING LAYOUTS AS INDICATED ON THE RESPECTIVE FLOOR PLANS MAY NOT BE ALTERED WITHOUT THE APPROVAL OF THE STRUCTURAL ENGINEER.
4. LAMINATING BEAMS, UNLESS NOTED OTHERWISE:
   - UP TO THREE 44mm WIDE PLIES BEAMS MAY BE NAILED WITH 3 ROWS OF 3 - 12mm COMMON NAILS @ 300mm O.C. EACH SIDE
   - FOUR PLIES SHALL BE BOLTED WITH 2 ROWS OF Ø12mm BOLTS, EACH ROW @ 300mm O.C. STAGGER ROWS.
   - REFER TO MANUFACTURER'S GUIDES FOR MORE DETAILED BUILT-UP INSTRUCTION.
   - CONSULT WITH STRUCTURAL ENGINEER BEFORE DRILLING OR CUTTING BEAMS.
5. MANUFACTURED JOIST MUST HAVE SOLID RIM MATERIAL, OR A RIM JOIST STIFFENED AND BLOCKED AS PER MANUFACTURER'S INSTRUCTION. JOIST CHORDS MUST NOT BE DRILLED OR CUT, AND JOIST MUST BE KEPT UPRIGHT AT ALL TIMES.
6. BEAM SUPPLIER IS RESPONSIBLE FOR PROVIDING ALL REQUIRED HANGERS AT BEARING CONNECTION LOCATIONS DESIGNED TO WITHSTAND APPLICABLE LOADING.

NOTES:

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CONSULTANT/SEALS

PRELIMINARY
NOT FOR CONSTRUCTION

TWS Engineering Ltd.
STRUCTURAL | MECHANICAL
ELECTRICAL | CIVIL CONSULTING

B	ISSUED FOR CLIENT REVIEW	2024-06-14
A	ISSUED FOR CLIENT REVIEW	2023-12-14

CLIENT

MELEWKA STRUCTURES & DESIGN

KUMLIN SULLIVAN ARCHITECTURE STUDIO LTD.
300, 5809 - 2 Street S.W., Calgary, Alberta, T2H 0H3
Phone. (403) 283 8361 Fax. (403) 252 7877

PROJECT

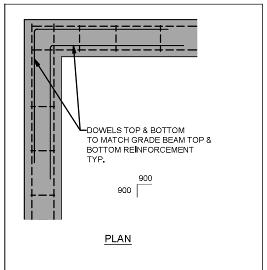
METIS NATION OF AB COMMUNITY RECOVERY CENTER
SMOKY LAKE ALBERTA

DRAWING

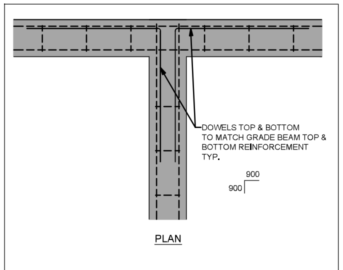
STRUCTURAL AND GENERAL NOTES

FILE:	23-1843-004S
PROJECT No.:	TWS 23-1843-004S
SCALE:	AS SHOWN
DATE:	2023-12-14
DRAWN BY:	GN
DRAWING No: S0.1	REVISION: A

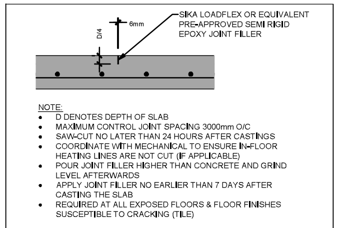
PLOT DATE: June 14, 2024
PLOTTED BY: GREGORIO NISPEROS



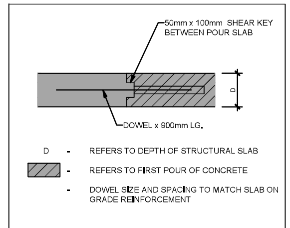
CONCRETE GRADE BEAM
@ CORNER LOCATION | NO.



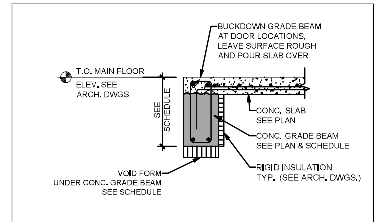
CONCRETE GRADE BEAM @
T-INTERSECTION LOCATION | NO.



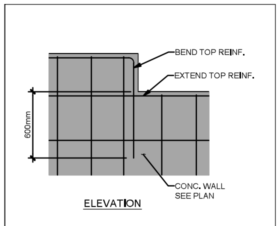
SAW CUT AT CONCRETE
SLAB ON GRADE (CONTROL JOINT) | NO.



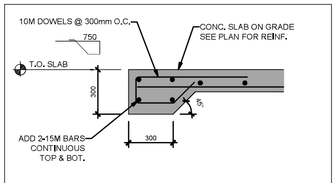
POUR BREAK ON CONCRETE
SLAB ON GRADE | NO.



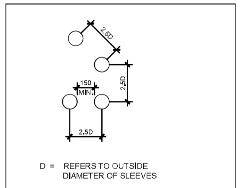
BUCKDOWN GRADE BEAM
AT DOOR LOCATIONS | NO.



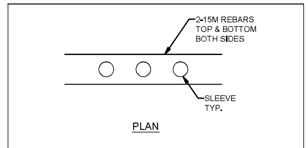
CONCRETE WALL @ CHANGE
IN HEIGHT LOCATION | NO.



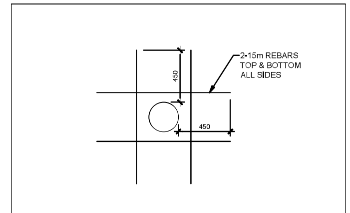
CONCRETE SLAB THICKENING | NO.



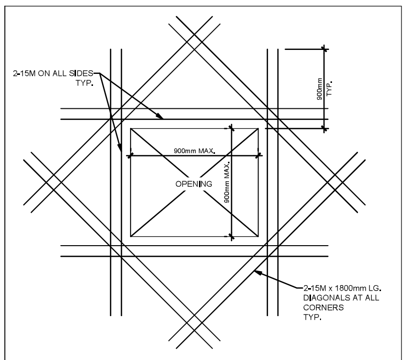
SPACING OF SLEEVES
IN CONCRETE SLAB
AND CONCRETE WALL | NO.



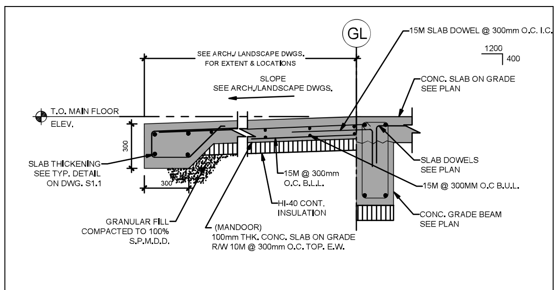
ADDITIONAL REINFORCEMENT
FOR CONCRETE SLAB WITH
THREE OR MORE SLEEVES | NO.



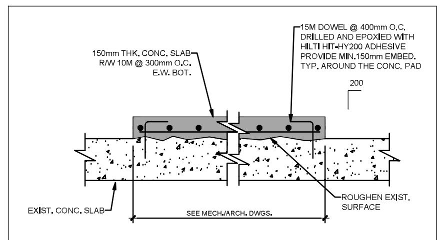
ADDITIONAL REINFORCEMENT FOR
SLEEVES WITH Ø GREATER THAN
100mm ON CONCRETE SLAB/WALL | NO.



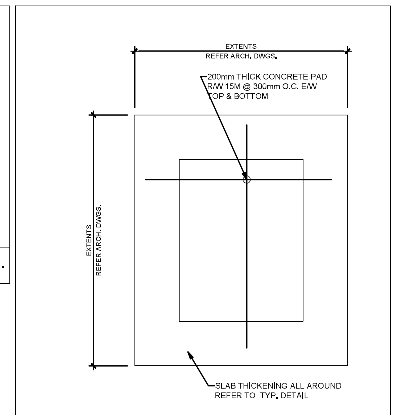
CONCRETE SLAB ON GRADE
OPENING REINFORCEMENT | NO.



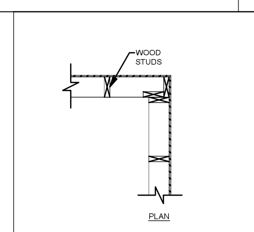
CONCRETE APRON / ENTRANCE SLAB | NO.
- PROVIDE SAW CUT @ EVERY 4500mm (MAX.)



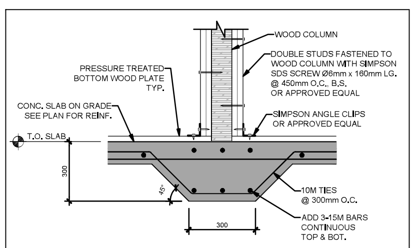
HOUSEKEEPING CONCRETE PAD | NO.



TYPICAL GARBAGE ENCLOSURE PAD | NO.



CORNER WALL DETAIL | NO.



WOOD COLUMN TO CONCRETE
SLAB CONNECTION | NO.

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CLIENT

MELEWKA STRUCTURES & DESIGN

KUMLIN SULLIVAN ARCHITECTURE STUDIO LTD.
380, 5809 - 2 Street S.W., Calgary, Alberta T2H 0H3
Phone: (403) 283 6334 Fax: (403) 252 7077

PROJECT

METIS NATION OF AB COMMUNITY RECOVERY CENTER

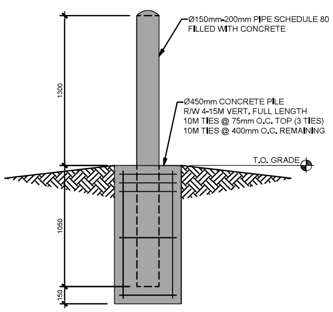
SMOKY LAKE ALBERTA

DRAWING

TYPICAL DETAILS

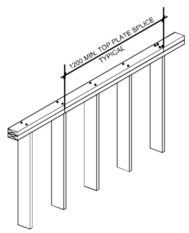
FILE:	23-1843-0045
PROJECT No.:	TWS 23-1843-0045
SCALE:	AS SHOWN
DATE:	2023-12-14
DRAWN BY:	GN
DRAWING No: S0.2	REVISION: A

G:\2023\1800 - 1899\1843 MELEWKA STRUCTURES & DESIGN\23-1843-004 METIS NATION OF AB COMMUNITY RECOVERY\03 20 WD\WORKING\DETAILS\23-1843-0045.DWG
LAYOUT: S0.2
PAPER SIZE: ARCH D
PLOT DATE: June 14, 2024
PLOTTED BY: GREGORIO NISPEROS

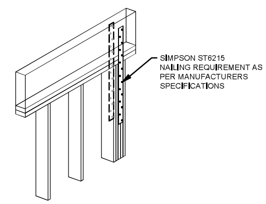


BOLLARD CONSTRUCTION | NO.

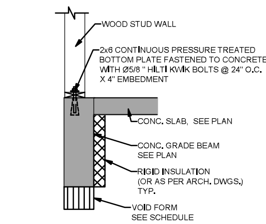
- SEE ARCH. DWGS. FOR LOCATION AND QUANTITY.



TYPICAL TOP PLATE SPLICE | NO.

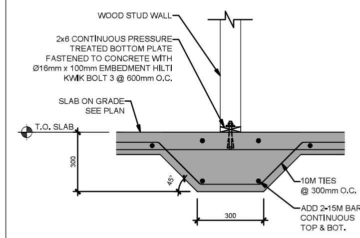


WOOD BEAM TO COLUMN CONNECTION (BEAM PARALLEL TO WALL) | NO.

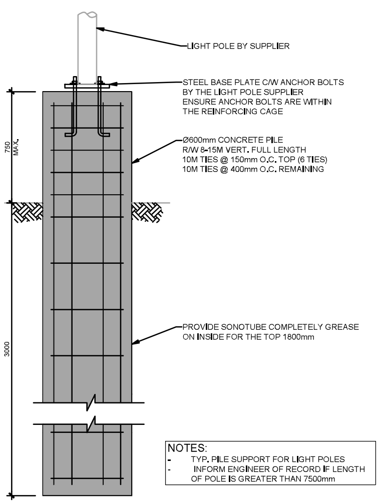


NOTE:
- AT WALL OPENING BOLTS TO BE LOCATED AT LEAST 12" FROM EACH SIDE OF WALL OPENING

WOOD STUD WALL TO CONCRETE SLAB CONNECTION | NO.



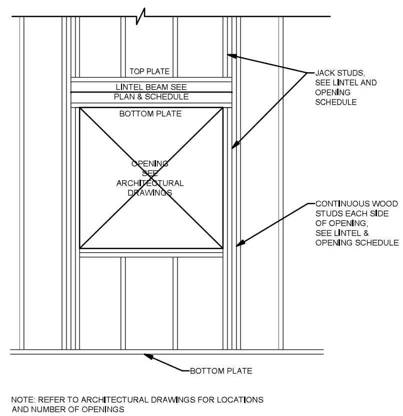
WOOD STUD WALL TO CONCRETE SLAB CONNECTION | NO.



NOTES:
- TYP. PILE SUPPORT FOR LIGHT POLES
- INFORM ENGINEER OF RECORD IF LENGTH OF POLE IS GREATER THAN 7500mm

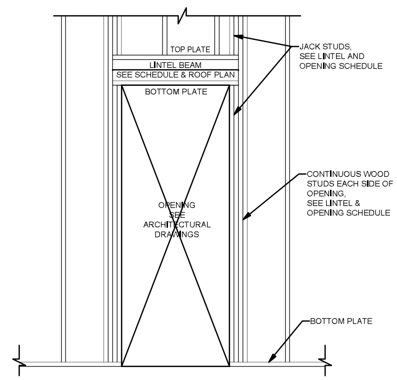
LIGHT POLE PILE STANDARD DETAIL | NO.

- REFER TO ARCH. DWGS. FOR LOCATIONS



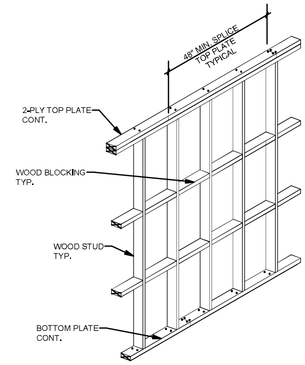
NOTE: REFER TO ARCHITECTURAL DRAWINGS FOR LOCATIONS AND NUMBER OF OPENINGS

ELEVATION AT OPENING DETAIL WOOD STUD WALL | NO.

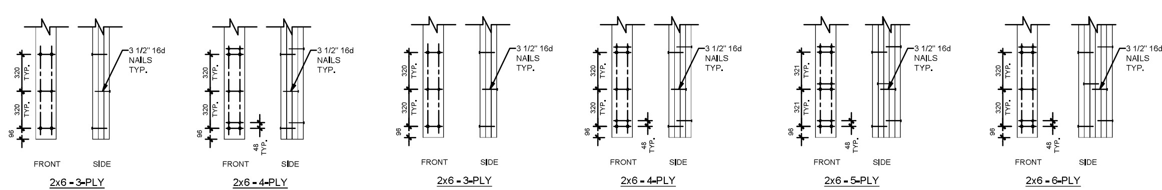


ELEVATION AT DOOR OPENING DETAIL WOOD STUD WALL | NO.

REFER TO ARCHITECTURAL DRAWINGS FOR LOCATIONS AND NO. OF OPENINGS



FRAMING ISOMETRIC VIEW WOOD STUD WALL | NO.



PLY BUILT-UP WOOD COLUMN NAILING REQUIREMENTS | NO.

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CONSULTANT/SEALS

PRELIMINARY
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CLIENT
MELEWKA STRUCTURES & DESIGN

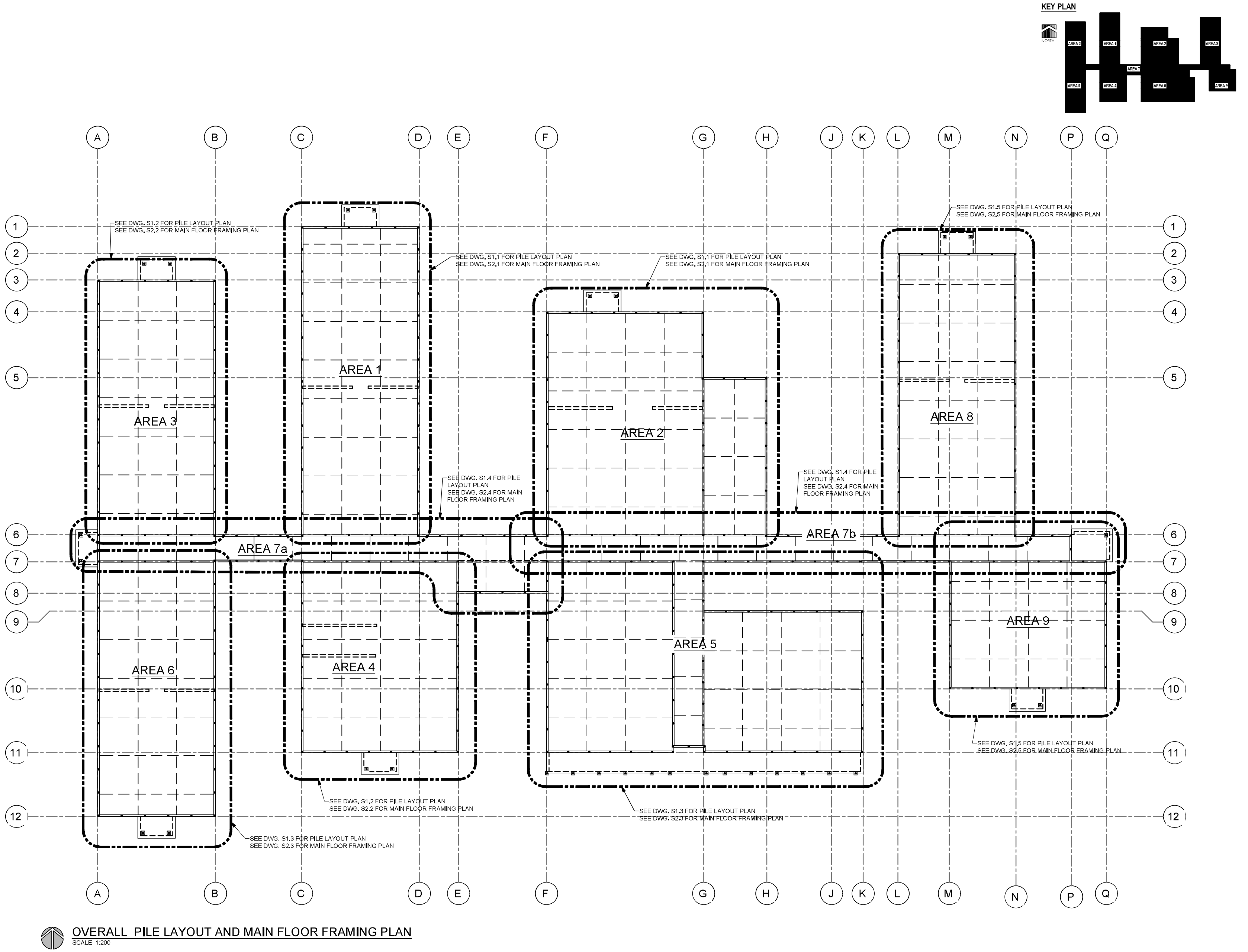
KUMLIN SULLIVAN ARCHITECTURE STUDIO LTD.
380, 5809 - 2 Street S.W., Calgary, Alberta T2H 0H3
Phone: (403) 283 6351 Fax: (403) 252 7877

PROJECT
METIS NATION OF AB COMMUNITY RECOVERY CENTER
SMOKY LAKE ALBERTA

DRAWING
TYPICAL DETAILS

FILE:	23-1843-004S
PROJECT No.:	TWS 23-1843-004S
SCALE:	AS SHOWN
DATE:	2023-12-14
DRAWN BY:	GN
DRAWING No.: S0.3	REVISION: A

G:\2023\1800 - 1899\1843 MELEWKA STRUCTURES & DESIGN\23-1843-004 METIS NATIONS OF AB COMMUNITY RECOVERY\03 20 WD\WORKING\DETAILS\23-1843-004S.DWG
LAYOUT: S0.3
PAPER SIZE: ARCH D
PLOT DATE: June 14, 2024
PLOTTED BY: GREGORIO NISPEROS



OVERALL PILE LAYOUT AND MAIN FLOOR FRAMING PLAN
SCALE 1:200

NOTES:

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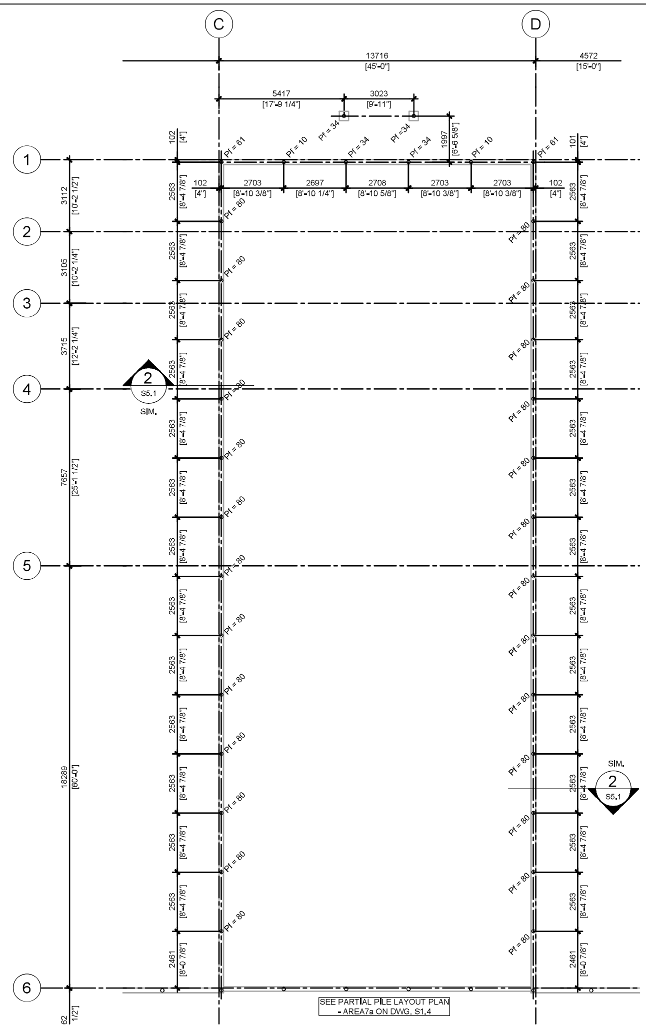
380, 5819 - 2 Street S.W., Calgary, Alberta, T2H 0H3
Phone: (403) 283 8361 Fax: (403) 252 7077

PROJECT
METIS NATION OF AB COMMUNITY RECOVERY CENTER
SMOKY LAKE ALBERTA

DRAWING
OVERALL PILE LAYOUT AND MAIN FLOOR FRAMING PLAN

FILE:	23-1843-004S
PROJECT No.:	TWS 23-1843-004S
SCALE:	AS SHOWN
DATE:	2023-12-14
DRAWN BY:	GN
DRAWING No: S1.0	REVISION A

LAYOUT: S1.0
PAPER SIZE: ARCH D
PLOT DATE: June 14, 2024
PLOTTED BY: GREGORIO NISPEROS



PARTIAL PILE LAYOUT PLAN - AREA 1

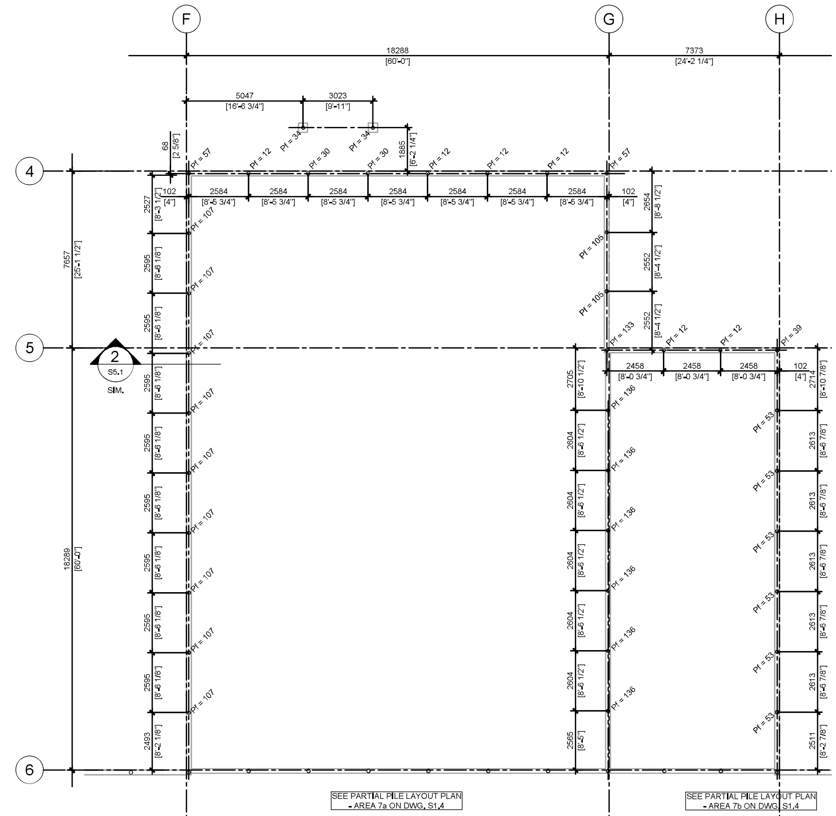
SCALE 1:100

NORTH

1. SEE GENERAL AND STRUCTURAL NOTES ON DRAWING S0.1.
2. SEE TYPICAL DETAILS ON DRAWING S0.2.
3. SEE GEOTECHNICAL REPORT FOR FURTHER RECOMMENDATIONS.
4. SEE MECHANICAL DRAWINGS FOR WEEPING TILE INSTALLATIONS.
5. T.O. STEEL PILE CAP @ ELEV. -610 U.N.O. IN PLAN.

LEGEND:

Pf = REFERS TO FACTORED COMPRESSIVE LOAD IN kN



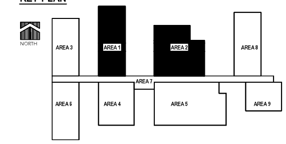
PARTIAL PILE LAYOUT PLAN - AREA 2

SCALE 1:100

NORTH

1. SEE GENERAL AND STRUCTURAL NOTES ON DRAWING S0.1.
2. SEE TYPICAL DETAILS ON DRAWING S0.2.
3. SEE GEOTECHNICAL REPORT FOR FURTHER RECOMMENDATIONS.
4. SEE MECHANICAL DRAWINGS FOR WEEPING TILE INSTALLATIONS.
5. T.O. STEEL PILE CAP @ ELEV. -610 U.N.O. IN PLAN.

KEY PLAN



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380, 5689 - 2 Street S.W., Calgary, Alberta T2H 0H3
Phone (403) 283 6351 Fax (403) 252 7077

PROJECT

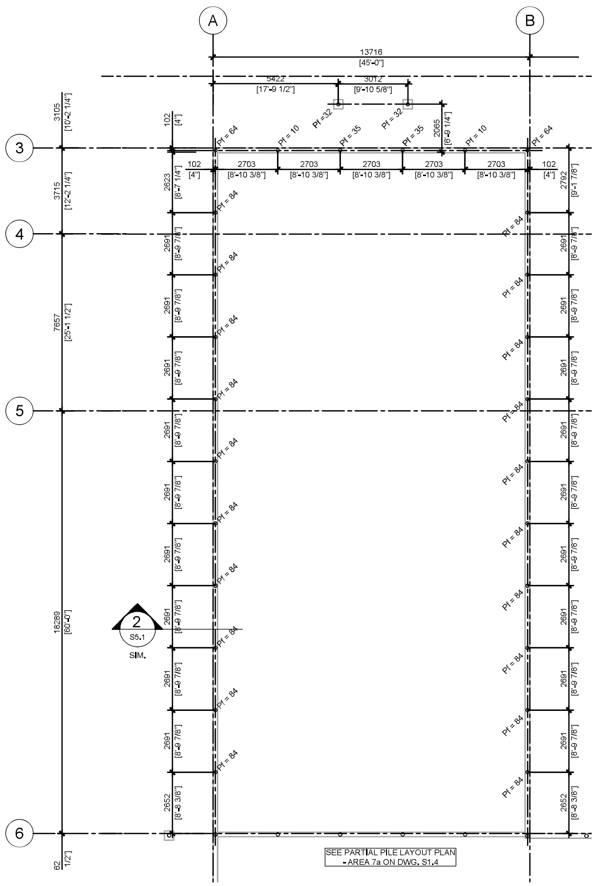
METIS NATION OF AB COMMUNITY RECOVERY CENTER

SMOKY LAKE ALBERTA

DRAWING

PARTIAL PILE LAYOUT PLANS

FILE:	23-1843-004S
PROJECT No.:	TWS 23-1843-004S
SCALE:	AS SHOWN
DATE:	2023-12-14
DRAWN BY:	GN
DRAWING No: S1.1	REVISION A



PARTIAL PILE LAYOUT PLAN - AREA 3

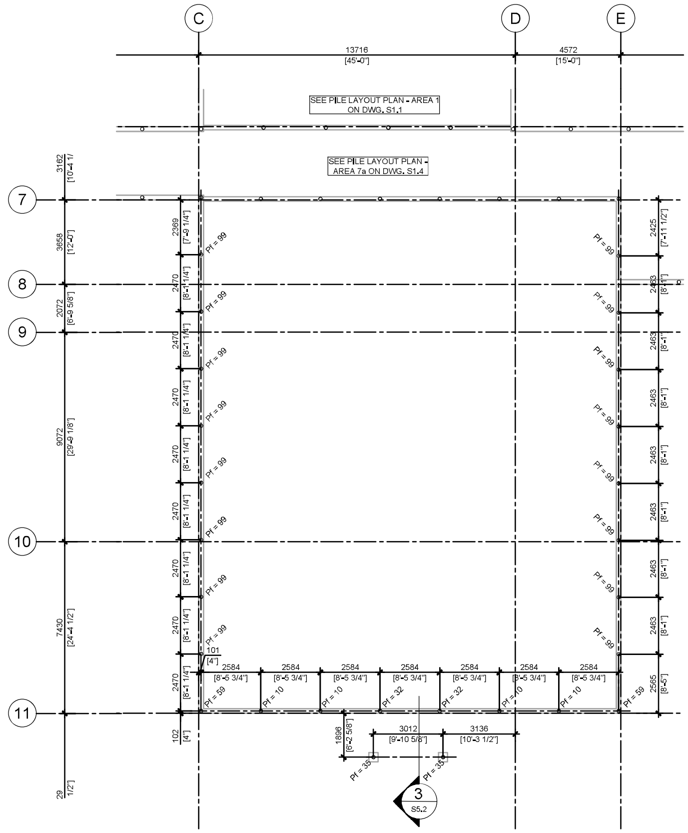
SCALE 1:100

NORTH

1. SEE GENERAL AND STRUCTURAL NOTES ON DRAWING S0.1.
2. SEE TYPICAL DETAILS ON DRAWING S0.2.
3. SEE GEOTECHNICAL REPORT FOR FURTHER RECOMMENDATIONS.
4. SEE MECHANICAL DRAWINGS FOR WEEPING TILE INSTALLATIONS.
5. T.O. STEEL PILE CAP @ ELEV. -610 U.N.O. IN PLAN.

LEGEND:

Pf = REFERS TO FACTORED COMPRESSIVE LOAD IN kN



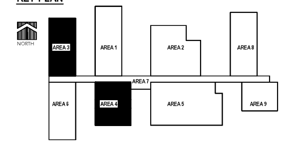
PARTIAL PILE LAYOUT PLAN - AREA 4

SCALE 1:100

NORTH

1. SEE GENERAL AND STRUCTURAL NOTES ON DRAWING S0.1.
2. SEE TYPICAL DETAILS ON DRAWING S0.2.
3. SEE GEOTECHNICAL REPORT FOR FURTHER RECOMMENDATIONS.
4. SEE MECHANICAL DRAWINGS FOR WEEPING TILE INSTALLATIONS.
5. T.O. STEEL PILE CAP @ ELEV. -610 U.N.O. IN PLAN.

KEY PLAN



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PRELIMINARY
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TWS Engineering Ltd.
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ELECTRICAL | CIVIL CONSULTING

B	ISSUED FOR CLIENT REVIEW	2024-06-14
A	ISSUED FOR CLIENT REVIEW	2023-12-14

CLIENT

MELEWKA STRUCTURES & DESIGN

KUMLIN SULLIVAN ARCHITECTURE STUDIO LTD.
380, 5689 - 2 Street S.W., Calgary, Alberta T2H 0H3
Phone: (403) 283 6351 Fax: (403) 252 7077

PROJECT

METIS NATION OF AB COMMUNITY RECOVERY CENTER

SMOKY LAKE ALBERTA

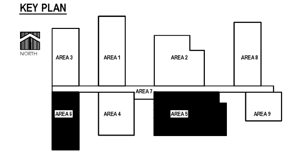
DRAWING

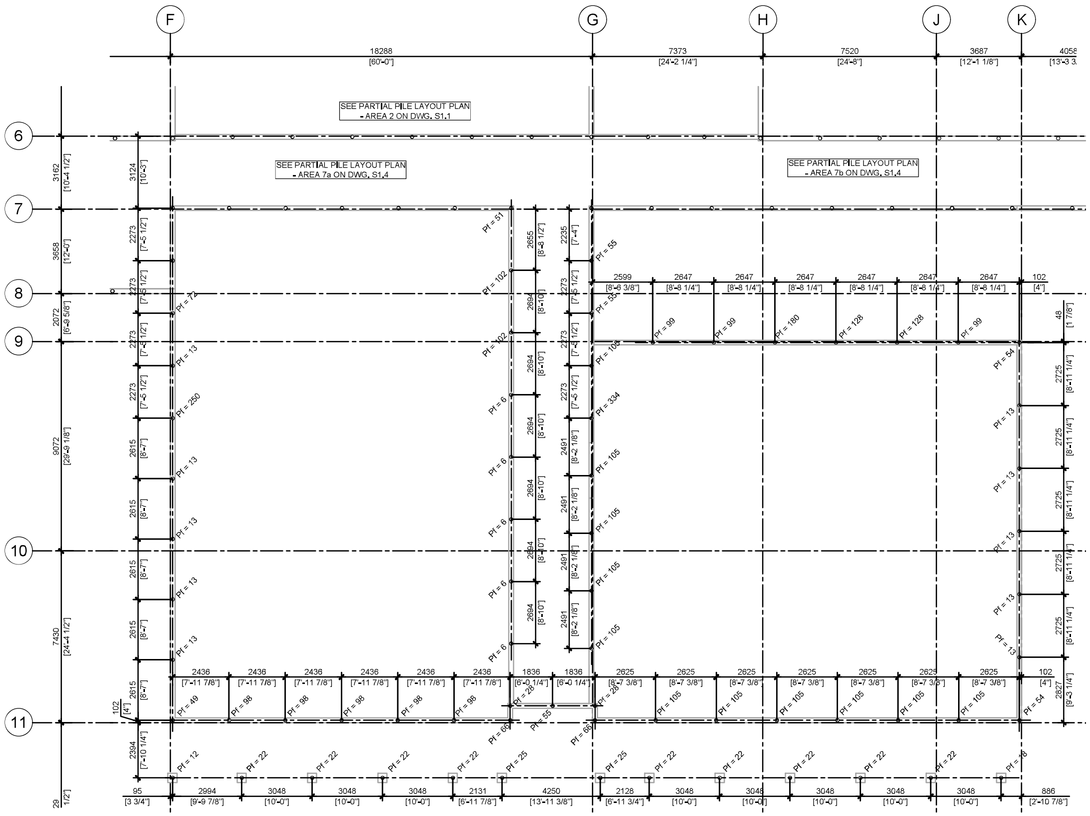
PARTIAL PILE LAYOUT PLANS

FILE:	23-1843-004S
PROJECT No.:	TWS 23-1843-004S
SCALE:	AS SHOWN
DATE:	2023-12-14
DRAWN BY:	GN
DRAWING No.: S1.2	REVISION: A

G:\2023\1800 - 1899\1843 MELEWKA STRUCTURES & DESIGN\23-1843-004 METIS NATIONS OF AB COMMUNITY RECOVERY\S3 2D WORK\DRAWINGS\DETAILS\23-1843-004S.DWG
LAYOUT: S1.2
PAPER SIZE: ARCH D
PLOT DATE: June 14, 2024
PLOTTED BY: GREGORIO NISPEROS

KEY PLAN





PARTIAL PILE LAYOUT PLAN - AREA 5

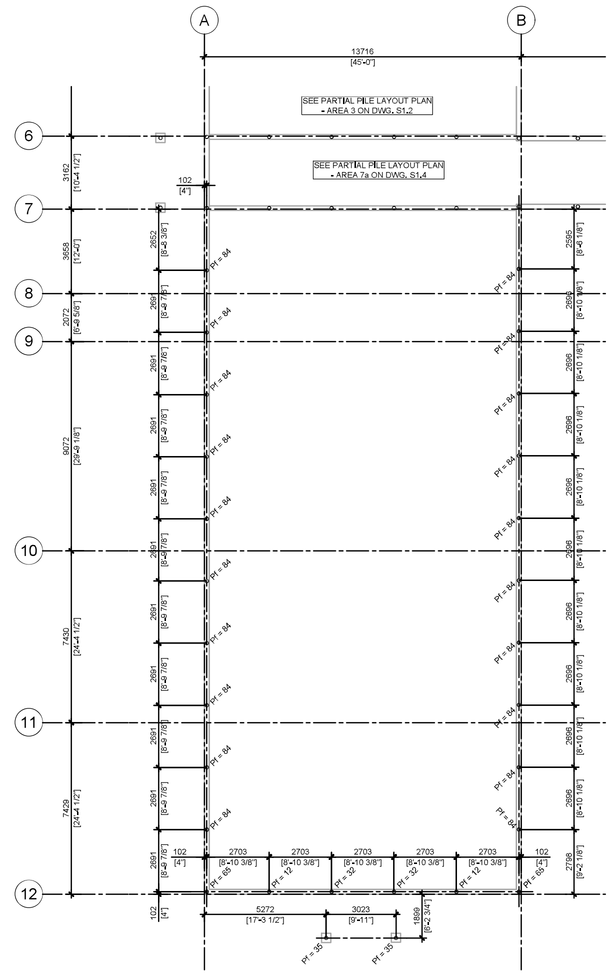
SCALE 1:100

NORTH

1. SEE GENERAL AND STRUCTURAL NOTES ON DRAWING S0.1.
2. SEE TYPICAL DETAILS ON DRAWING S0.2.
3. SEE GEOTECHNICAL REPORT FOR FURTHER RECOMMENDATIONS.
4. SEE MECHANICAL DRAWINGS FOR WEEPING TILE INSTALLATIONS.
5. T.O. STEEL PILE CAP @ ELEV. -610 U.N.O. IN PLAN.

LEGEND:

Pf = REFERS TO FACTORED COMPRESSIVE LOAD IN kN



PARTIAL PILE LAYOUT PLAN - AREA 6

SCALE 1:100

NORTH

1. SEE GENERAL AND STRUCTURAL NOTES ON DRAWING S0.1.
2. SEE TYPICAL DETAILS ON DRAWING S0.2.
3. SEE GEOTECHNICAL REPORT FOR FURTHER RECOMMENDATIONS.
4. SEE MECHANICAL DRAWINGS FOR WEEPING TILE INSTALLATIONS.
5. T.O. STEEL PILE CAP @ ELEV. -610 U.N.O. IN PLAN.

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Phone: (403) 283 6334 Fax: (403) 252 7077

PROJECT

METIS NATION OF AB COMMUNITY RECOVERY CENTER

SMOKY LAKE ALBERTA

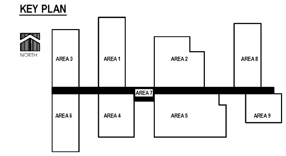
DRAWING

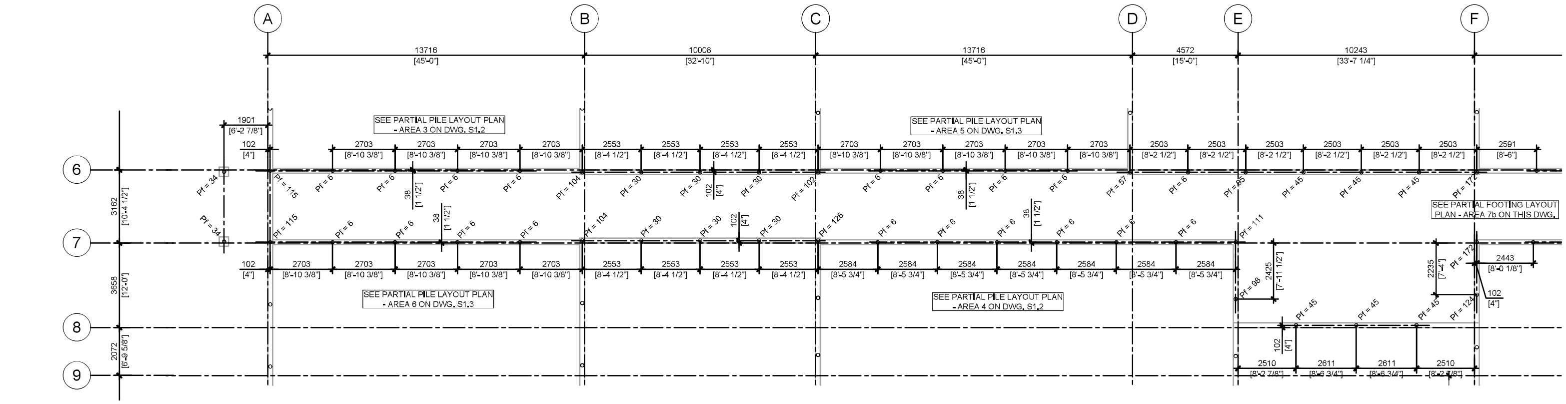
PARTIAL PILE LAYOUT PLANS

FILE:	23-1843-004S
PROJECT No.:	TWS 23-1843-004S
SCALE:	AS SHOWN
DATE:	2023-12-14
DRAWN BY:	GN

DRAWING No:	REVISION
S1.3	A

KEY PLAN





PARTIAL PILE LAYOUT PLAN - AREA 7a

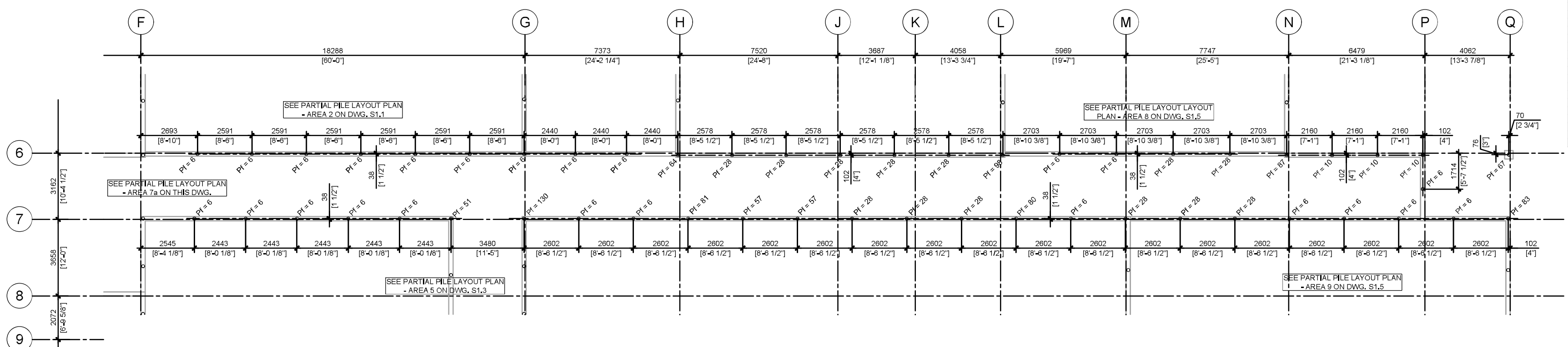
NORTH

SCALE 1:100

1. SEE GENERAL AND STRUCTURAL NOTES ON DRAWING S0.1.
2. SEE TYPICAL DETAILS ON DRAWING S0.2.
3. SEE GEOTECHNICAL REPORT FOR FURTHER RECOMMENDATIONS.
4. SEE MECHANICAL DRAWINGS FOR WEEPING TILE INSTALLATIONS.
5. T.O. STEEL PILE CAP @ ELEV. -610 U.N.O. IN PLAN.

LEGEND:

Pf = REFERS TO FACTORED COMPRESSIVE LOAD IN kN



PARTIAL PILE LAYOUT PLAN - AREA 7b

NORTH

SCALE 1:100

1. SEE GENERAL AND STRUCTURAL NOTES ON DRAWING S0.1.
2. SEE TYPICAL DETAILS ON DRAWING S0.2.
3. SEE GEOTECHNICAL REPORT FOR FURTHER RECOMMENDATIONS.
4. SEE MECHANICAL DRAWINGS FOR WEEPING TILE INSTALLATIONS.
5. T.O. STEEL PILE CAP @ ELEV. -610 U.N.O. IN PLAN.

LEGEND:

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Phone (403) 283 8331 Fax (403) 252 7077

PROJECT

METIS NATION OF AB COMMUNITY RECOVERY CENTER

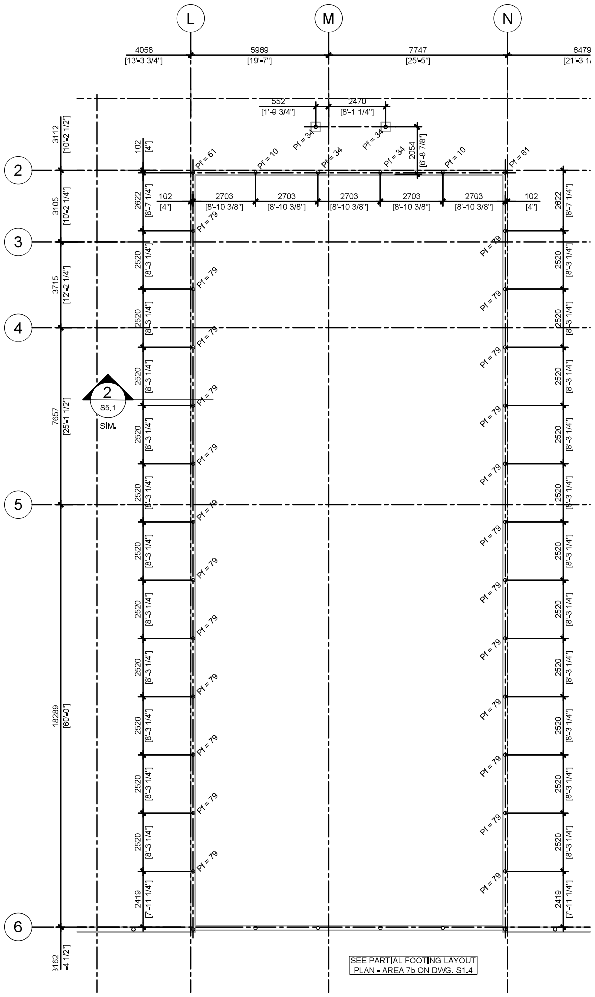
SMOKY LAKE ALBERTA

DRAWING

PARTIAL PILE LAYOUT PLANS

FILE:	23-1843-004S
PROJECT No.:	TWS 23-1843-004S
SCALE:	AS SHOWN
DATE:	2023-12-14
DRAWN BY:	GN
DRAWING No.: S1.4	REVISION: A

G:\2023\1800 - 1899\1843 MELEWKA STRUCTURES & DESIGN\23-1843-004 METIS NATIONS OF AB COMMUNITY RECOVERY\3 20 WDWORKING\DETAILS\23-1843-004S.DWG
LAYOUT: S1.4
PAPER SIZE: ARCH D
PLOT DATE: June 14, 2024
PLOTTED BY: GREGORIO NISPEROS



PARTIAL PILE LAYOUT PLAN - AREA 8

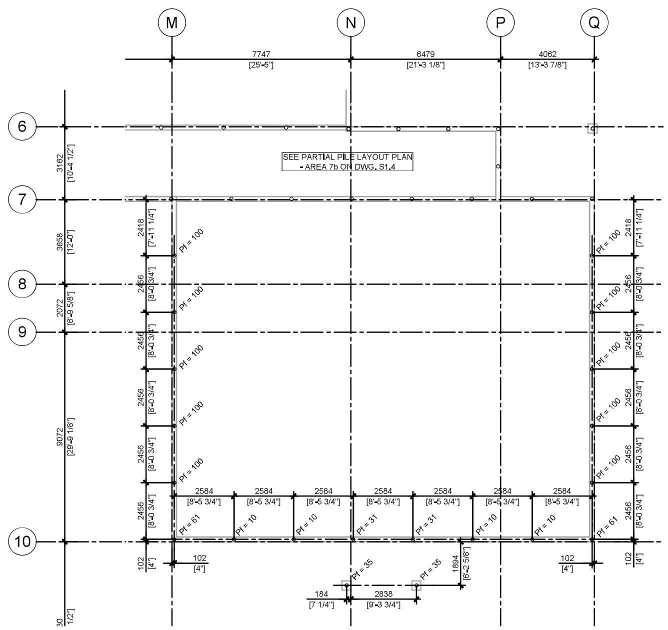
NORTH

SCALE 1:100

1. SEE GENERAL AND STRUCTURAL NOTES ON DRAWING S0.1.
2. SEE TYPICAL DETAILS ON DRAWING S0.2.
3. SEE GEOTECHNICAL REPORT FOR FURTHER RECOMMENDATIONS.
4. SEE MECHANICAL DRAWINGS FOR WEEPING TILE INSTALLATIONS.
5. T.O. STEEL PILE CAP @ ELEV. -610 U.N.O. IN PLAN.

LEGEND:

Pf = REFERS TO FACTORED COMPRESSIVE LOAD IN kN



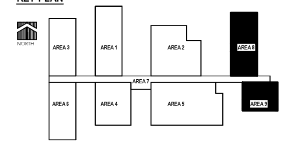
PARTIAL PILE LAYOUT PLAN - AREA 9

NORTH

SCALE 1:100

1. SEE GENERAL AND STRUCTURAL NOTES ON DRAWING S0.1.
2. SEE TYPICAL DETAILS ON DRAWING S0.2.
3. SEE GEOTECHNICAL REPORT FOR FURTHER RECOMMENDATIONS.
4. SEE MECHANICAL DRAWINGS FOR WEEPING TILE INSTALLATIONS.
5. T.O. STEEL PILE CAP @ ELEV. -610 U.N.O. IN PLAN.

KEY PLAN



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Phone: (403) 283 8354 Fax: (403) 252 7877

PROJECT

METIS NATION OF AB COMMUNITY RECOVERY CENTER

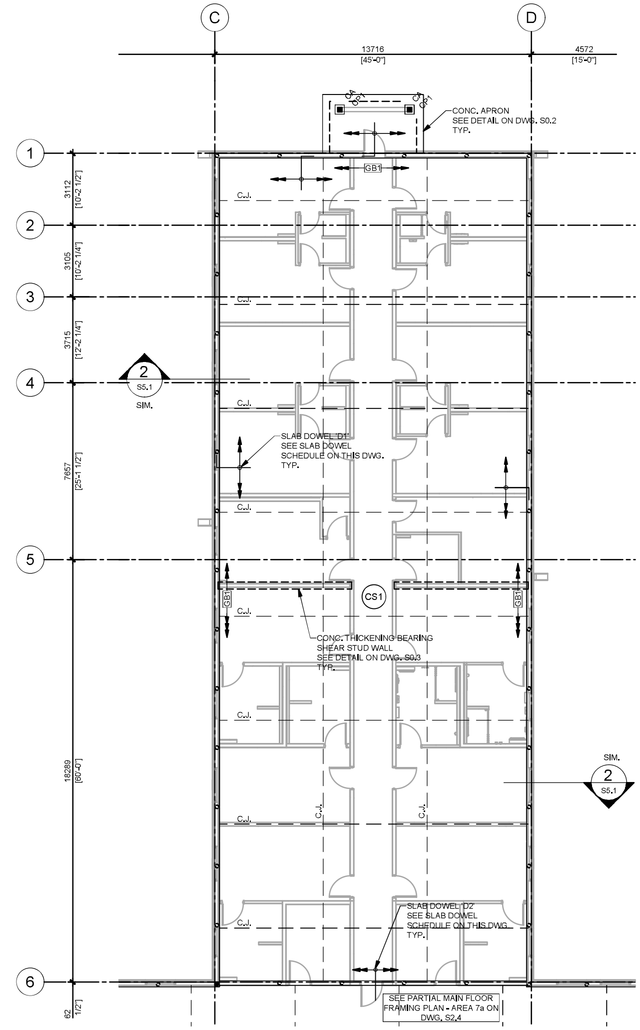
SMOKY LAKE ALBERTA

DRAWING

PARTIAL PILE LAYOUT PLANS

FILE:	23-1843-004S
PROJECT No.:	TWS 23-1843-004S
SCALE:	AS SHOWN
DATE:	2023-12-14
DRAWN BY:	GN
DRAWING No:	S1.5
REVISION	A

G:\2023\1800 - 1899\1843 MELEWKA STRUCTURES & DESIGN\23-1843-004 METIS NATIONS OF AB COMMUNITY RECOVERY\S3 2D WORKING DETAILS\23-1843-004S.DWG
LAYOUT: S1.5
PAPER SIZE: ARCH D
PLOT DATE: June 14, 2024
PLOTTED BY: GREGORIO NISPEROS

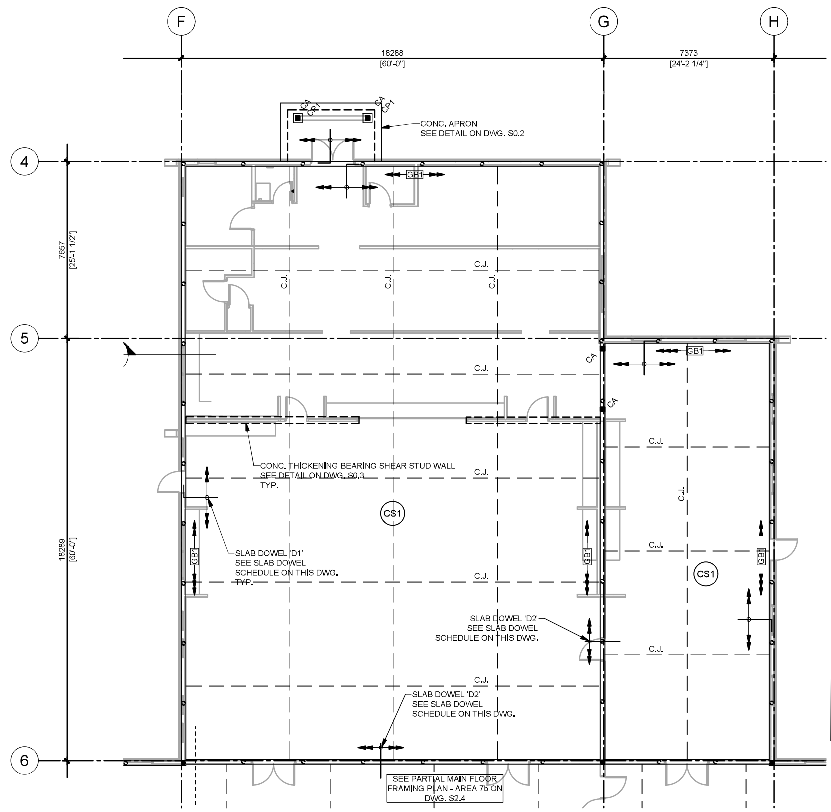


PARTIAL MAIN FLOOR FRAMING PLAN - AREA 1

SCALE 1:100

NORTH

1. SEE GENERAL AND STRUCTURAL NOTES ON DRAWING S0.1.
2. SEE TYPICAL DETAILS ON DRAWING S0.2.
3. SEE GEOTECHNICAL REPORT FOR FOOTING SUB-BASE PREPARATION.
4. SEE MECHANICAL DRAWINGS FOR WEEPING TILE INSTALLATIONS.
5. C.J. REFERS TO CONTROL JOINT (SAW CUT), SEE DETAIL ON DWG. S0.2.



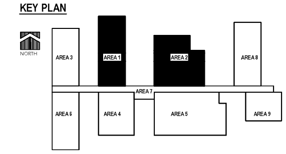
PARTIAL MAIN FLOOR FRAMING PLAN - AREA 2

SCALE 1:100

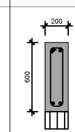
NORTH

1. SEE GENERAL AND STRUCTURAL NOTES ON DRAWING S0.1.
2. SEE TYPICAL DETAILS ON DRAWING S0.2.
3. SEE GEOTECHNICAL REPORT FOR FOOTING SUB-BASE PREPARATION.
4. SEE MECHANICAL DRAWINGS FOR WEEPING TILE INSTALLATIONS.
5. C.J. REFERS TO CONTROL JOINT (SAW CUT), SEE DETAIL ON DWG. S0.2.

KEY PLAN



CONCRETE GRADE BEAM SCHEDULE ('GB')

MARK	'GB1'
DIMENSION	200mm x 600mm
STEEL REINFORCEMENT	2-20M TOP 2-20M BOT. 10M @ 300mm O.C. TIES
SCHEMATIC SECTION	
VOID FORM	150mm

CONCRETE SLAB SCHEDULE (CS)

MARK	DESCRIPTION
CS1	100mm THK. CONC. SLAB ON GRADE R/W 10M @ 400mm O.C. EACH WAY TOP ON 6 MIL VAPOUR BARRIER SEE GEOTECHNICAL REPORT FOR SUB-SOIL PREPARATION

CONCRETE PIER SCHEDULE (CP)

MARK	DESCRIPTION
CP1	400mm x 400mm x 1500mm TALL CONC. PIER R/W 4-15M VERT. 10M TIES @ 6" O.C.

CONCRETE SLAB DOWEL REINFORCEMENT (D)

MARK	BAR SIZE	X	SPACING	REMARKS
D1	10M	600mm	400mm O.C.	TOP
D2	10M	1500mm	400mm O.C.	TOP

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CLIENT

MELEWKA STRUCTURES & DESIGN

KUMLIN SULLIVAN ARCHITECTURE STUDIO LTD.
380, 5689 - 2 Street S.W., Calgary, Alberta T2H 0H3
Phone: (403) 283 6314 Fax: (403) 252 7077

PROJECT

METIS NATION OF AB COMMUNITY RECOVERY CENTER

SMOKY LAKE ALBERTA

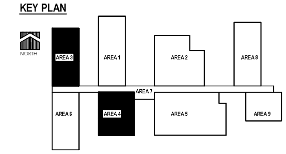
DRAWING

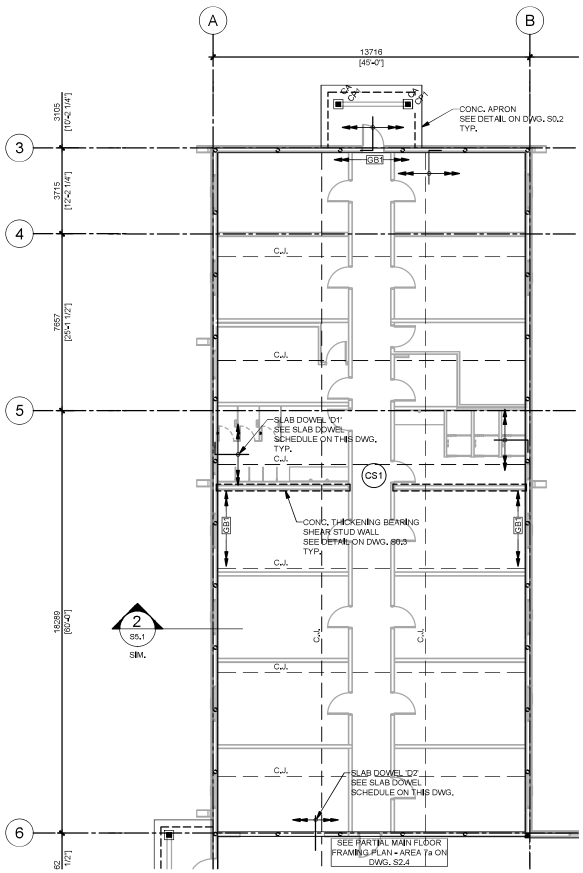
PARTIAL MAIN FLOOR FRAMING PLANS

FILE:	23-1843-004S
PROJECT No.:	TWS 23-1843-004S
SCALE:	AS SHOWN
DATE:	2023-12-14
DRAWN BY:	GN
DRAWING No: S2.1	REVISION A

G:\2023\1800 - 1899\1843 MELEWKA STRUCTURES & DESIGN\23-1843-004 METIS NATIONS OF AB COMMUNITY RECOVERY\03 2D WD\WORKING\DETAILS\23-1843-004S.DWG
LAYOUT: S2.1
PAPER SIZE: ARCH D
PLOT DATE: June 14, 2024
PLOTTED BY: GREGORIO NISPEROS

KEY PLAN



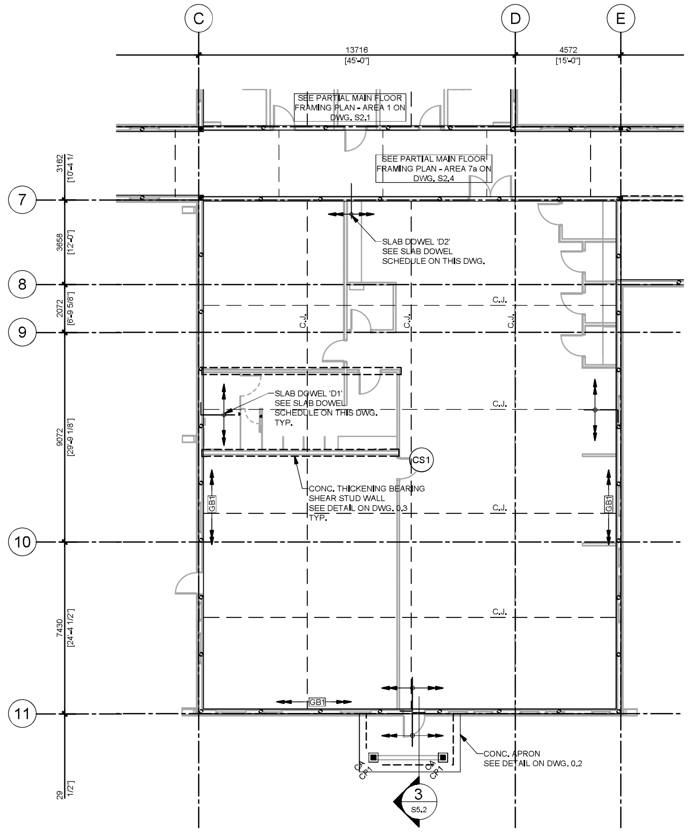


PARTIAL MAIN FLOOR FRAMING PLAN - AREA 3

SCALE 1:100

NORTH

1. SEE GENERAL AND STRUCTURAL NOTES ON DRAWING S0.1.
2. SEE TYPICAL DETAILS ON DRAWING S0.2.
3. SEE GEOTECHNICAL REPORT FOR FOOTING SUB-BASE PREPARATION.
4. SEE MECHANICAL DRAWINGS FOR WEEPING TILE INSTALLATIONS.
5. C.J. REFERS TO CONTROL JOINT (SAW CUT), SEE DETAIL ON DWG. S0.2.



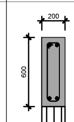
PARTIAL MAIN FLOOR FRAMING PLAN - AREA 4

SCALE 1:100

NORTH

1. SEE GENERAL AND STRUCTURAL NOTES ON DRAWING S0.1.
2. SEE TYPICAL DETAILS ON DRAWING S0.2.
3. SEE GEOTECHNICAL REPORT FOR FOOTING SUB-BASE PREPARATION.
4. SEE MECHANICAL DRAWINGS FOR WEEPING TILE INSTALLATIONS.
5. C.J. REFERS TO CONTROL JOINT (SAW CUT), SEE DETAIL ON DWG. S0.2.

CONCRETE GRADE BEAM SCHEDULE ('GB')

MARK	'GB1'
DIMENSION	200mm x 600mm
STEEL REINFORCEMENT	2-20M TOP 2-20M BOT. 10M @ 300mm O.C. TIES
SCHEMATIC SECTION	
VOID FORM	150mm

CONCRETE SLAB SCHEDULE (CS)

MARK	DESCRIPTION
CS1	100mm THK. CONC. SLAB ON GRADE R/W 10M @ 400mm O.C. EACH WAY TOP ON 6 MIL VAPOUR BARRIER SEE GEOTECHNICAL REPORT FOR SUB-SOIL PREPARATION

CONCRETE PIER SCHEDULE (CP)

MARK	DESCRIPTION
CP1	400mm x 400mm x 1500mm TALL CONC. PIER R/W 4-15M VERT. 10M TIES @ 6" O.C.

CONCRETE SLAB DOWEL REINFORCEMENT (D)

MARK	BAR SIZE	X	SPACING	REMARKS
D1	10M	600mm	400mm O.C.	TOP
D2	10M	1500mm	400mm O.C.	TOP

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PROJECT

METIS NATION OF AB COMMUNITY RECOVERY CENTER

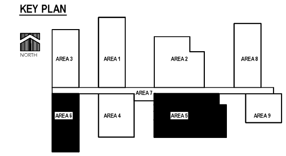
SMOKY LAKE ALBERTA

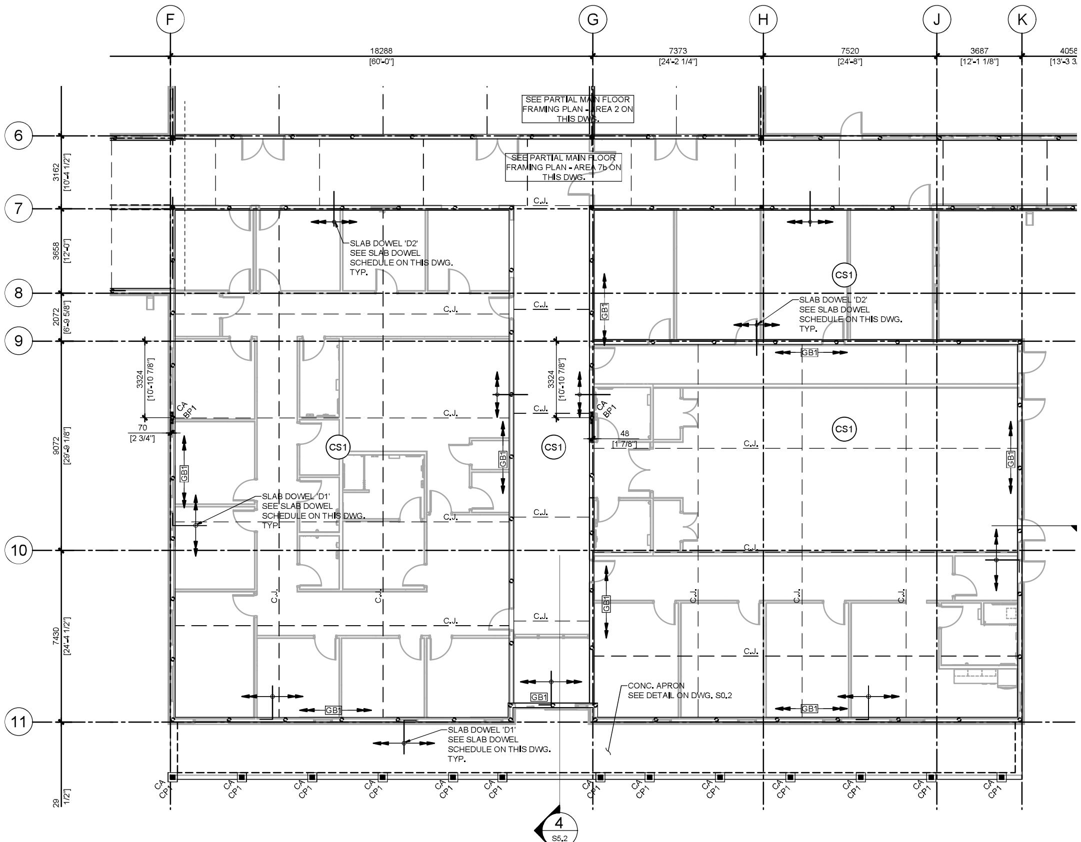
DRAWING

PARTIAL MAIN FLOOR FRAMING PLANS

FILE:	23-1843-004S
PROJECT No.:	TWS 23-1843-004S
SCALE:	AS SHOWN
DATE:	2023-12-14
DRAWN BY:	GN
DRAWING No: S2.2	REVISION A

G:\2023\1800 - 1899\1843 MELEWKA STRUCTURES & DESIGN\23-1843-004 METIS NATIONS OF AB COMMUNITY RECOVERY\03 2D WD\WORKING\DETAILS\23-1843-004S.DWG
LAYOUT: S2.2
PAPER SIZE: ARCH D
PLOT DATE: June 14, 2024
PLOTTED BY: GREGORIO NISPEROS





PARTIAL MAIN FLOOR FRAMING PLAN - AREA 5

SCALE 1:100

NORTH

1. SEE GENERAL AND STRUCTURAL NOTES ON DRAWING S0.1.
2. SEE TYPICAL DETAILS ON DRAWING S0.2.
3. SEE GEOTECHNICAL REPORT FOR FOOTING SUB-BASE PREPARATION.
4. SEE MECHANICAL DRAWINGS FOR WEEPING TILE INSTALLATIONS.
5. FOR STEEL BASE PLATE DETAIL, SEE DWG. S4.1
5. C.J. REFERS TO CONTROL JOINT (SAW CUT), SEE DETAIL ON DWG. S0.2.

CONCRETE SLAB DOWEL REINFORCEMENT (D)

MARK	BAR SIZE	X	SPACING	REMARKS
D1	10M	600mm	400mm O.C.	TOP
D2	10M	1500mm	400mm O.C.	TOP

CONCRETE PIER SCHEDULE (CP)

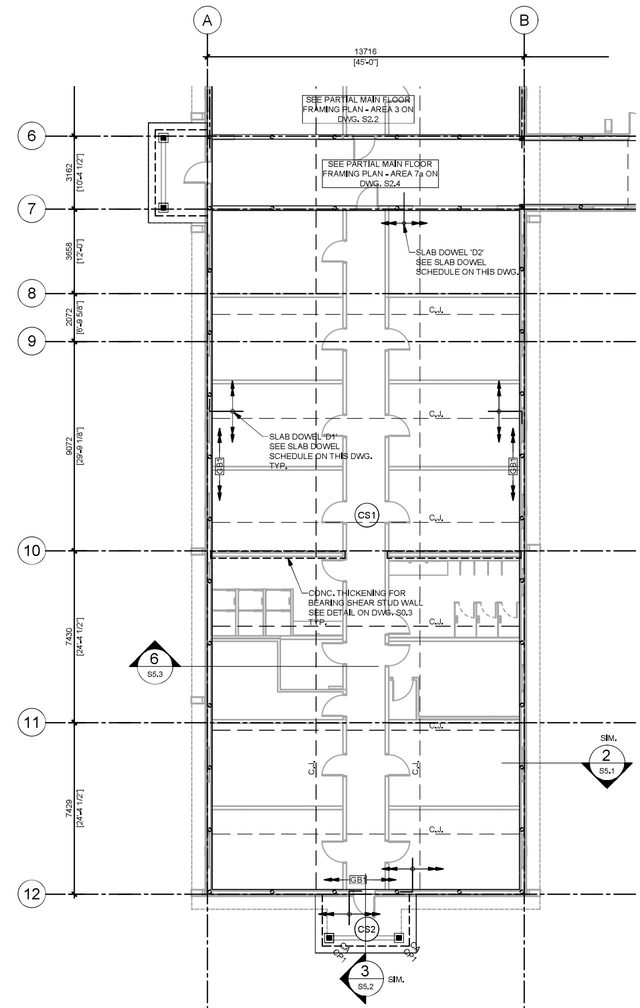
MARK	DESCRIPTION
CP1	400mm x 400mm x 1500mm TALL CONC. PIER R/W 4-15M VERT. 10M TIES @ 6" O.C.

CONCRETE SLAB SCHEDULE (CS)

MARK	DESCRIPTION
CS1	100mm THK. CONC. SLAB ON GRADE R/W 10M @ 400mm O.C. EACH WAY TOP ON 6 MIL VAPOUR BARRIER SEE GEOTECHNICAL REPORT FOR SUB-SOIL PREPARATION

CONCRETE GRADE BEAM SCHEDULE ('GB')

MARK	'GB1'
DIMENSION	200mm x 600mm
STEEL REINFORCEMENT	2-20M TOP 2-20M BOT. 10M @ 300mm O.C. TIES
SCHEMATIC SECTION	200 / 600
VOID FORM	150mm



PARTIAL MAIN FLOOR FRAMING PLAN - AREA 6

SCALE 1:100

NORTH

1. SEE GENERAL AND STRUCTURAL NOTES ON DRAWING S0.1.
2. SEE TYPICAL DETAILS ON DRAWING S0.2.
3. SEE GEOTECHNICAL REPORT FOR FOOTING SUB-BASE PREPARATION.
4. SEE MECHANICAL DRAWINGS FOR WEEPING TILE INSTALLATIONS.
5. C.J. REFERS TO CONTROL JOINT (SAW CUT), SEE DETAIL ON DWG. S0.2.

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Phone (403) 283 6354 Fax (403) 252 7877

PROJECT

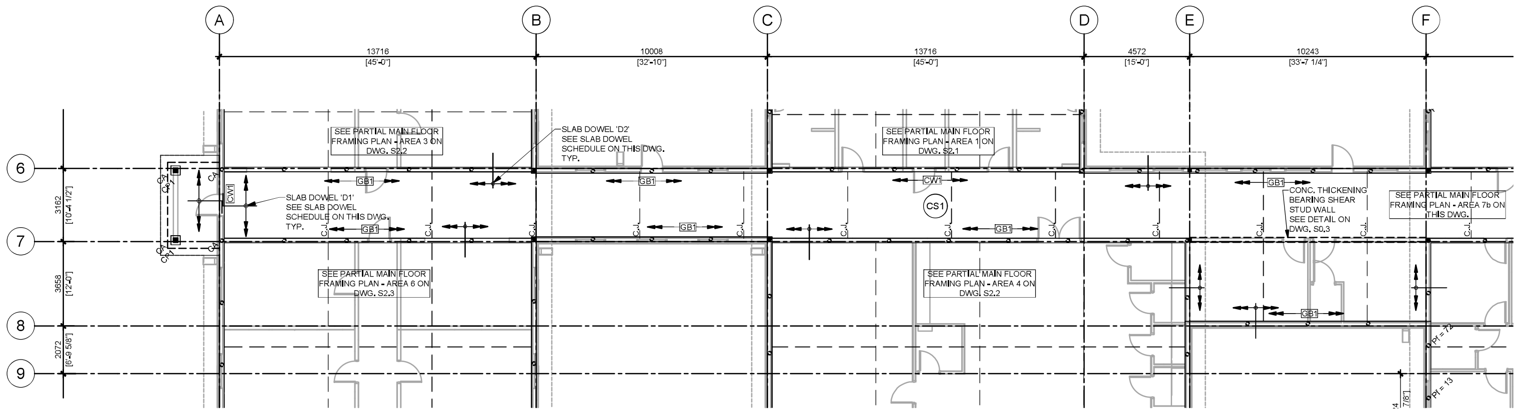
METIS NATION OF AB COMMUNITY RECOVERY CENTER

SMOKY LAKE ALBERTA

DRAWING

PARTIAL MAIN FLOOR FRAMING PLANS

FILE:	23-1843-004S
PROJECT No.:	TWS 23-1843-004S
SCALE:	AS SHOWN
DATE:	2023-12-14
DRAWN BY:	GN
DRAWING No: S2.3	REVISION A

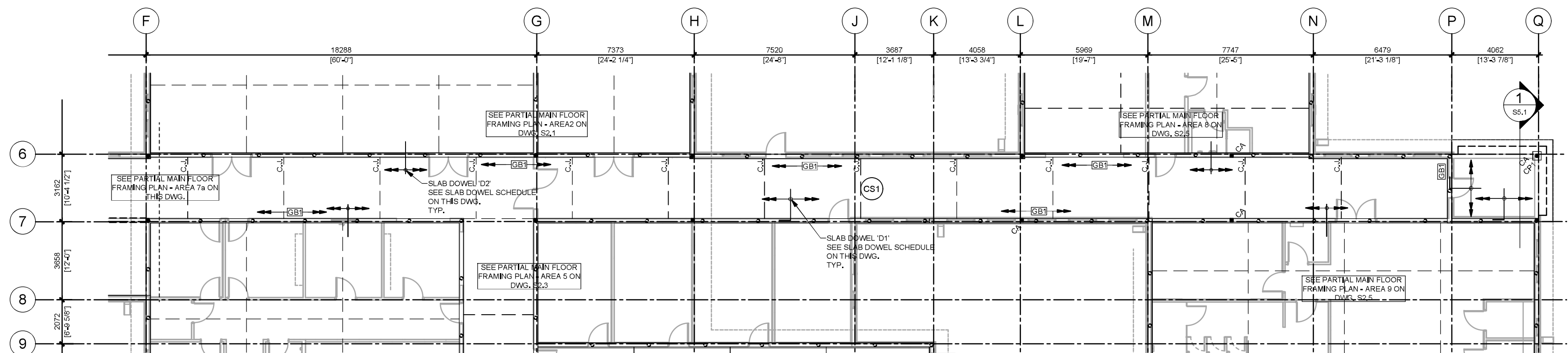


PARTIAL MAIN FLOOR FRAMING PLAN - AREA 7a

SCALE 1:100

NORTH

1. SEE GENERAL AND STRUCTURAL NOTES ON DRAWING S0.1.
2. SEE TYPICAL DETAILS ON DRAWING S0.2.
3. SEE GEOTECHNICAL REPORT FOR FOOTING SUB-BASE PREPARATION.
4. SEE MECHANICAL DRAWINGS FOR WEEPING TILE INSTALLATIONS.



PARTIAL MAIN FLOOR FRAMING PLAN - AREA 7b

SCALE 1:100

NORTH

1. SEE GENERAL AND STRUCTURAL NOTES ON DRAWING S0.1.
2. SEE TYPICAL DETAILS ON DRAWING S0.2.
3. SEE GEOTECHNICAL REPORT FOR FOOTING SUB-BASE PREPARATION.
4. SEE MECHANICAL DRAWINGS FOR WEEPING TILE INSTALLATIONS.

CONCRETE SLAB DOWEL REINFORCEMENT (D)

MARK	BAR SIZE	X	SPACING	REMARKS
D1	10M	600mm	400mm O.C.	TOP
D2	10M	1500mm	400mm O.C.	TOP

CONCRETE PIER SCHEDULE (CP)

MARK	DESCRIPTION
CP1	400mm x 400mm x 1500mm TALL CONC. PIER R/W 4-15M VERT. 10M TIES @ 6" O.C.

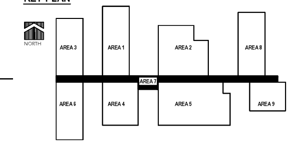
CONCRETE SLAB SCHEDULE (CS)

MARK	DESCRIPTION
CS1	100mm THK. CONC. SLAB ON GRADE R/W 10M @ 400mm O.C. EACH WAY TOP ON 6 MIL VAPOUR BARRIER SEE GEOTECHNICAL REPORT FOR SUB-SOIL PREPARATION

CONCRETE GRADE BEAM SCHEDULE ('GB')

MARK	'GB1'
DIMENSION	200mm x 600mm
STEEL REINFORCEMENT	2-20M TOP 2-20M BOT. 10M @ 300mm O.C. TIES
SCHEMATIC SECTION	200 / 600
VOID FORM	150mm

KEY PLAN



NOTES:

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This drawing supercedes previous issues.

Dimensions are taken to face of exterior sheathing, face of concrete block, face of stud for interior partitions, and centreline of demising walls, unless noted otherwise on the drawing.

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CONSULTANT/SEALS

PRELIMINARY
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TWS Engineering Ltd.
STRUCTURAL | MECHANICAL
ELECTRICAL | CIVIL CONSULTING

B	ISSUED FOR CLIENT REVIEW	2024-06-14
A	ISSUED FOR CLIENT REVIEW	2023-12-14

CLIENT

MELEWKA STRUCTURES & DESIGN

KUMLIN SULLIVAN ARCHITECTURE STUDIO LTD.
380, 5689 - 2 Street S.W., Calgary, Alberta. T2H 0H3
Phone (403) 283 6391 Fax (403) 252 7877

PROJECT

METIS NATION OF AB COMMUNITY RECOVERY CENTER

SMOKY LAKE ALBERTA

DRAWING

PARTIAL MAIN FLOOR FRAMING PLANS

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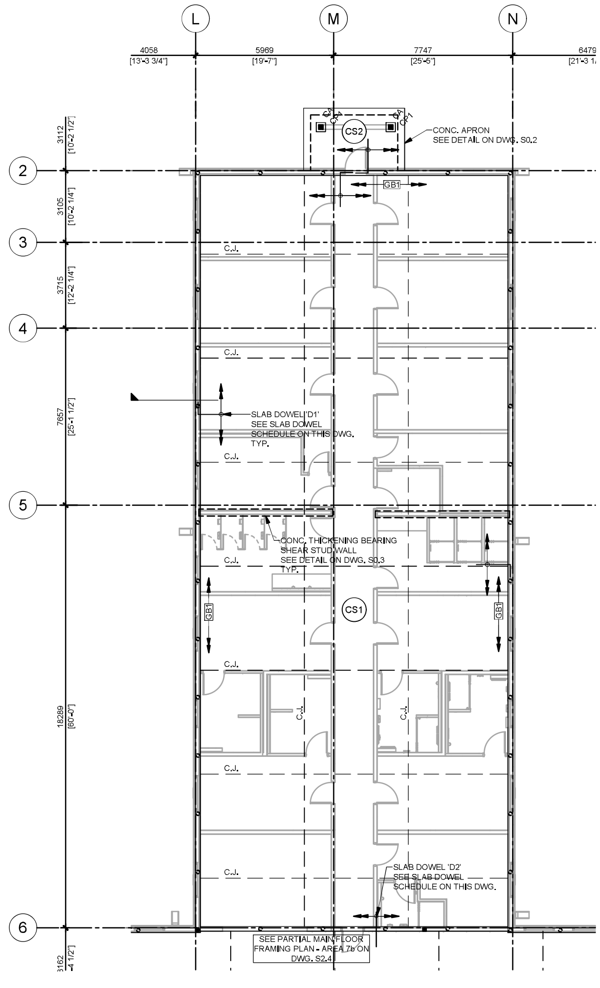
PROJECT No.:	TWS 23-1843-004S
SCALE:	AS SHOWN
DATE:	2023-12-14
DRAWN BY:	GN
DRAWING No: S2.4	REVISION A

G:\2023\1800 - 1899\1843 MELEWKA STRUCTURES & DESIGN\23-1843-004 METIS NATIONS OF AB COMMUNITY RECOVERY\S3 20 WDWORKING\DETAILS\23-1843-004S.DWG
LAYOUT: S2.4
PAPER SIZE: ARCH D
PLOT DATE: June 14, 2024
PLOTTED BY: GREGORIO NISPEROS

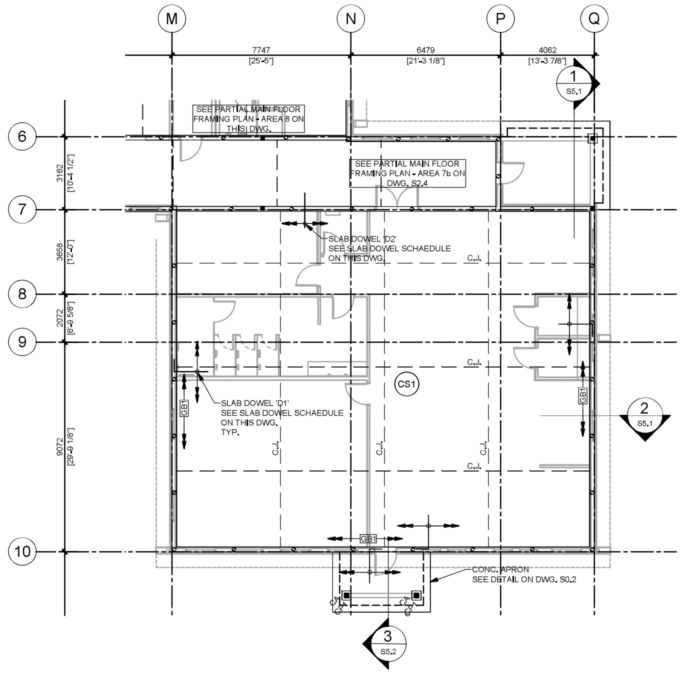


PARTIAL MAIN FLOOR FRAMING PLAN - AREA 8

SCALE 1:100

NORTH

1. SEE GENERAL AND STRUCTURAL NOTES ON DRAWING S0.1.
2. SEE TYPICAL DETAILS ON DRAWING S0.2.
3. SEE GEOTECHNICAL REPORT FOR FOOTING SUB-BASE PREPARATION.
4. SEE MECHANICAL DRAWINGS FOR WEEPING TILE INSTALLATIONS.



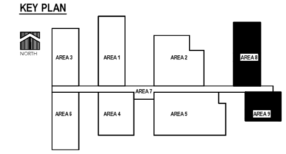
PARTIAL MAIN FLOOR FRAMING PLAN - AREA 9

SCALE 1:100

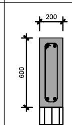
NORTH

1. SEE GENERAL AND STRUCTURAL NOTES ON DRAWING S0.1.
2. SEE TYPICAL DETAILS ON DRAWING S0.2.
3. SEE GEOTECHNICAL REPORT FOR FOOTING SUB-BASE PREPARATION.
4. SEE MECHANICAL DRAWINGS FOR WEEPING TILE INSTALLATIONS.

KEY PLAN



CONCRETE GRADE BEAM SCHEDULE ('GB')

MARK	'GB1'
DIMENSION	200mm x 600mm
STEEL REINFORCEMENT	2-20M TOP 2-20M BOT. 10M @ 300mm O.C. TIES
SCHEMATIC SECTION	
VOID FORM	150mm

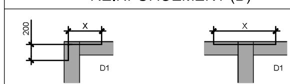
CONCRETE SLAB SCHEDULE (CS)

MARK	DESCRIPTION
CS1	100mm THK. CONC. SLAB ON GRADE R/W 10M @ 400mm O.C. EACH WAY TOP ON 6 MIL VAPOUR BARRIER SEE GEOTECHNICAL REPORT FOR SUB-SOIL PREPARATION

CONCRETE PIER SCHEDULE (CP)

MARK	DESCRIPTION
CP1	400mm x 400mm x 1500mm TALL CONC. PIER R/W 4-15M VERT. 10M TIES @ 6" O.C.

CONCRETE SLAB DOWEL REINFORCEMENT (D)



MARK	BAR SIZE	X	SPACING	REMARKS
D1	10M	600mm	400mm O.C.	TOP
D2	10M	1500mm	400mm O.C.	TOP

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CONSULTANT/SEALS

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CLIENT

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Phone: (403) 283 6354 Fax: (403) 252 7077

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DRAWING

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PROJECT No.:	TWS 23-1843-004S
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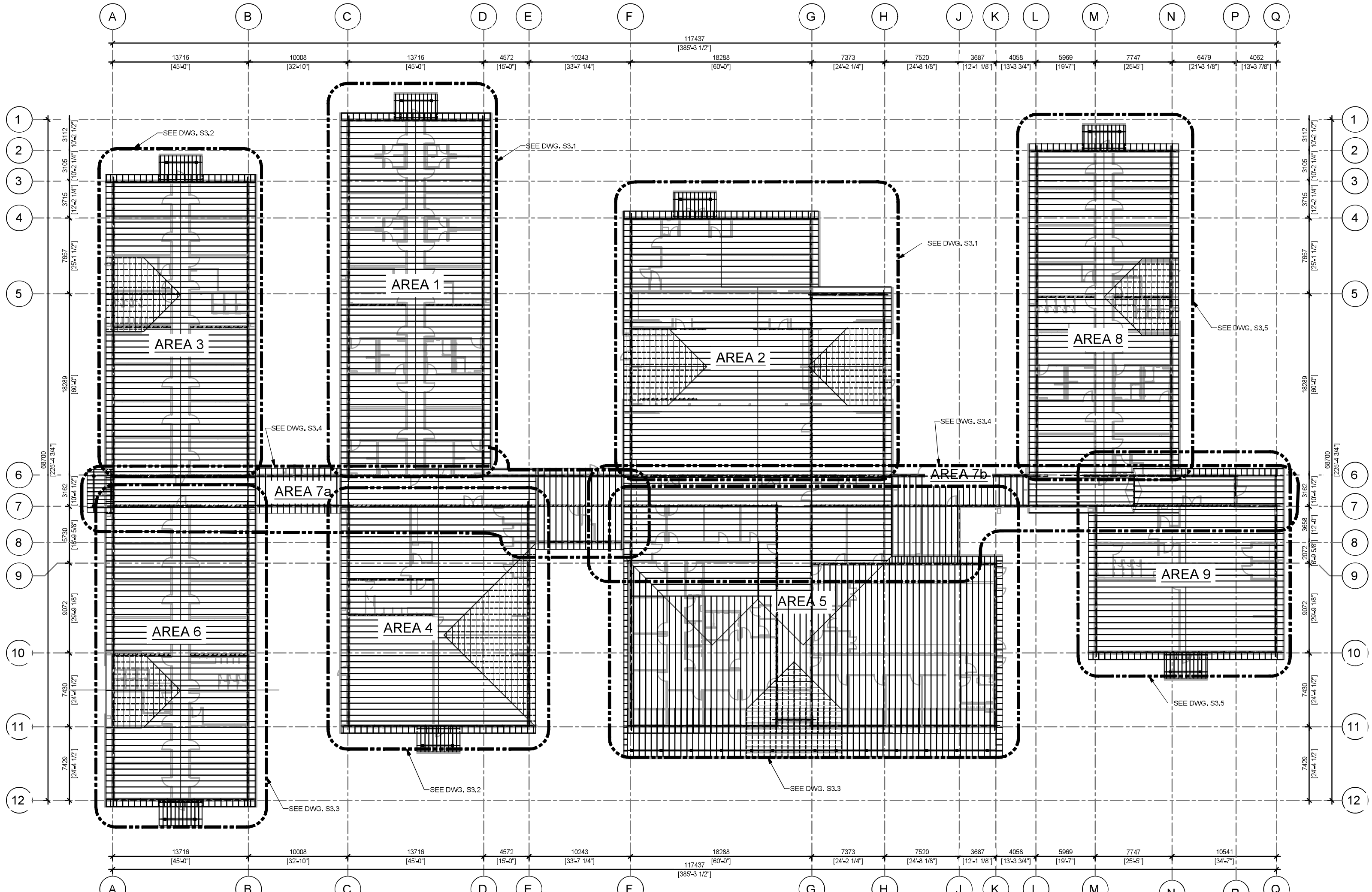
DATE:	2023-12-14
DRAWN BY:	GN
DRAWING No.: S2.5	REVISION: A

G:\2023\1800 - 1899\1843 MELEWKA STRUCTURES & DESIGN\23-1843-004 METIS NATIONS OF AB COMMUNITY RECOVERY\03 20 WD\WORKING\DETAILS\23-1843-004S.DWG
LAYOUT: S2.5
PAPER SIZE: ARCH D
PLOT DATE: June 14, 2024
PLOTTED BY: GREGORIO NISPEROS



OVERALL ROOF FRAMING PLAN

SCALE 1:200

NORTH

KEY PLAN

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Phone: (403) 283 8361 Fax: (403) 252 7877

PROJECT

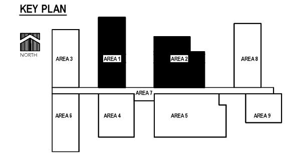
METIS NATION OF AB COMMUNITY RECOVERY CENTER

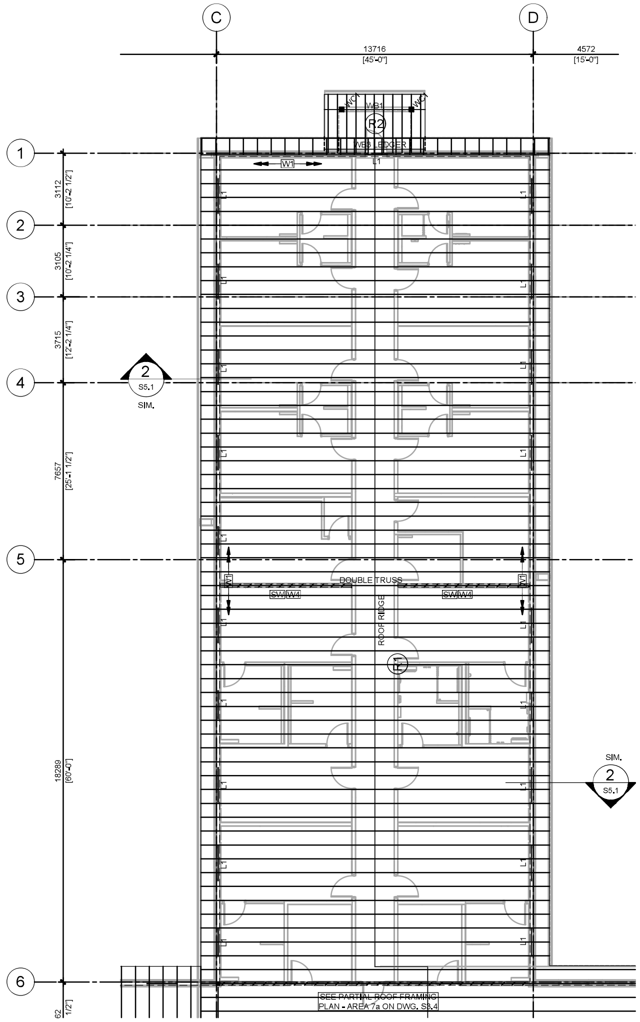
SMOKY LAKE ALBERTA

DRAWING

OVERALL ROOF FRAMING PLAN

FILE:	23-1843-004S
PROJECT No.:	TWS 23-1843-004S
SCALE:	AS SHOWN
DATE:	2023-12-14
DRAWN BY:	GN
DRAWING No:	S3.0
REVISION	A



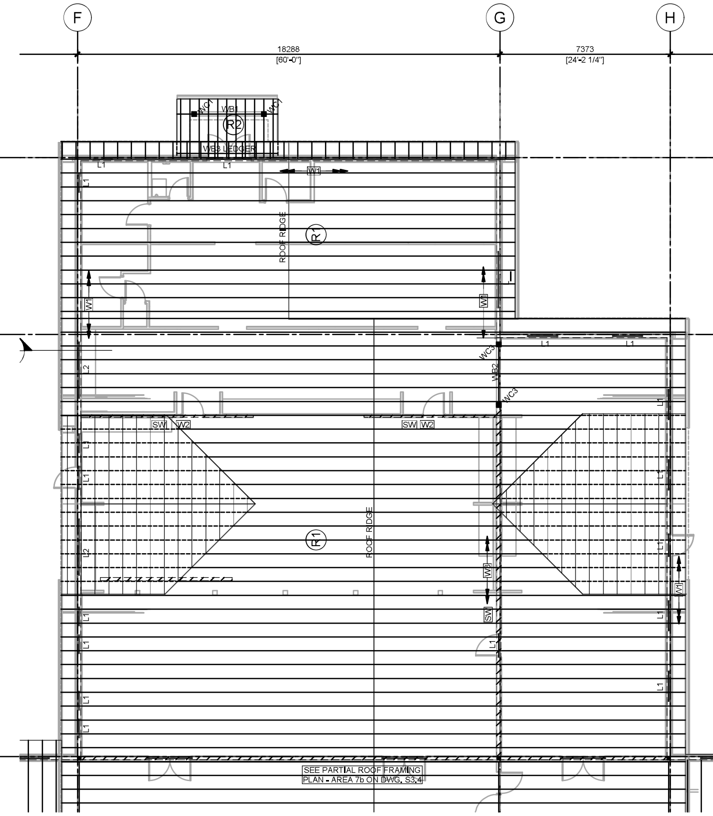


PARTIAL ROOF FRAMING PLAN - AREA 1

SCALE 1:100

NORTH

1. SEE GENERAL AND STRUCTURAL NOTES ON DRAWING S0.1.
2. SEE TYPICAL DETAILS ON DRAWING S0.2.
3. CONTRACTOR TO COORDINATE ALL DIMENSIONS AND ELEVATIONS SHOWN WITH ARCHITECTURAL DRAWINGS PRIOR TO COMMENCING OF WORK.
4. TRUSS JOISTS AND ALL MISCELLANEOUS ITEMS FOR ROOF FRAMING SHALL BE DESIGNED BY JOIST SUPPLIER.
5. ALL DIMENSIONS AND ELEVATIONS SHALL BE VERIFIED ON SITE PRIOR TO JOISTS FABRICATION.
4. PROVIDE JOIST BRIDGING AS REQUIRED SPACED AT 2400mm MAX TOP & BOTTOM CHORD.
5. REFER TO ARCHITECTURAL DRAWINGS FOR ROOF SLOPES.
6. COORDINATE LOCATION AND SIZE OF ROOF OPENINGS AND ROOF HATCH WITH ARCHITECTURAL AND MECHANICAL DRAWINGS.
7. ZZZZZ - REFERS TO SHEARWALL, SEE DETAIL AND SCHEDULE ON DWG. S4.1



PARTIAL ROOF FRAMING PLAN - AREA 2

SCALE 1:100

NORTH

1. SEE GENERAL AND STRUCTURAL NOTES ON DRAWING S0.1.
2. SEE TYPICAL DETAILS ON DRAWING S0.2.
3. CONTRACTOR TO COORDINATE ALL DIMENSIONS AND ELEVATIONS SHOWN WITH ARCHITECTURAL DRAWINGS PRIOR TO COMMENCING OF WORK.
4. TRUSS JOISTS AND ALL MISCELLANEOUS ITEMS FOR ROOF FRAMING SHALL BE DESIGNED BY JOIST SUPPLIER.
5. ALL DIMENSIONS AND ELEVATIONS SHALL BE VERIFIED ON SITE PRIOR TO JOISTS FABRICATION.
4. PROVIDE JOIST BRIDGING AS REQUIRED SPACED AT 2400mm MAX TOP & BOTTOM CHORD.
5. REFER TO ARCHITECTURAL DRAWINGS FOR ROOF SLOPES.
6. COORDINATE LOCATION AND SIZE OF ROOF OPENINGS AND ROOF HATCH WITH ARCHITECTURAL AND MECHANICAL DRAWINGS.
7. ZZZZZ - REFERS TO SHEARWALL, SEE DETAIL AND SCHEDULE ON DWG. S4.1

ROOF FRAMING SCHEDULE (R)

MARK	DESCRIPTION
R1	WOOD ROOF TRUSS @ 600mm O.C.
R2	38x235 (2x10) @ 400mm O.C. SPF NO.1/2

NOTES:

- WOOD TRUSS TO BE DESIGNED BY WOOD SUPPLIER.
- ALL WOOD TRUSSES TO BE STAMPED BY SUPPLIER'S ENGINEER
- PROVIDE BRIDGING @ 8'-0" O.C. (MAX.)
- ALL DOUBLE JOIST (D.J.) BEARING ON WALL TO BE SUPPORTED WITH MIN. 3-STUDS AT WALL SUPPORT LOCATIONS.

WOOD BEAM SCHEDULE

MARK	SIZE	SPECIES/GRADE
WB1	3-PLY 38x286 (2x12)	P.T. / SPF NO. 1/2
WB2	3-PLY 1 3/4" x 11 7/8" LVL	3100Fb-2.0E
WB3	38x286 (2x12)	P.T. / SPF NO. 1/2
WB4	3-PLY 1 3/4" x 16" LVL	3100Fb-2.0E

WOOD COLUMN SCHEDULE (WC)

MARK	SIZE	SPECIES / GRADE
WC1	184x184 (8x8)	P.T. / SPF NO. 1/2
WC2	4PLY 38x140 (2x6)	SPF NO. 1/2
WC3	3PLY 38x184 (2x8)	SPF NO. 1/2
WC4	5 1/4" x 5 1/4 PSL	1.8E PARALLAM

WOOD LINTEL BEAM SCHEDULE (L)

MARK	SIZE	SPECIES/GRADE
L1	3PLY 1 3/4" x 7 1/4" LVL C/W T&B PLATE 2 JACK STUDS E.S 2 CONT. STUD E.S	3100FB-2.0E - HEADER SPF NO. 1/2 - STUDS/PLATES
L2	3PLY 1 3/4" x 9 1/4" LVL C/W T&B PLATE 2 JACK STUDS E.S 2 CONT. STUD E.S	3100FB-2.0E - HEADER SPF NO. 1/2 - STUDS/PLATES

WOOD STUD WALL SCHEDULE (W)

MARK	DESCRIPTION
W1	38x140 (2x6) @ 400mm O.C.
W2	38x89 (2x4) @ 400mm O.C.
W3	38x184 (2x8) @ 400mm O.C.
W4	38x140 (2x6) @ 400mm O.C.

NOTE: PROVIDE HORIZONTAL BLOCKING TO MATCH STUD SIZE @ 1200mm O.C. SPACED VERTICALLY.

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PROJECT

METIS NATION OF AB COMMUNITY RECOVERY CENTER

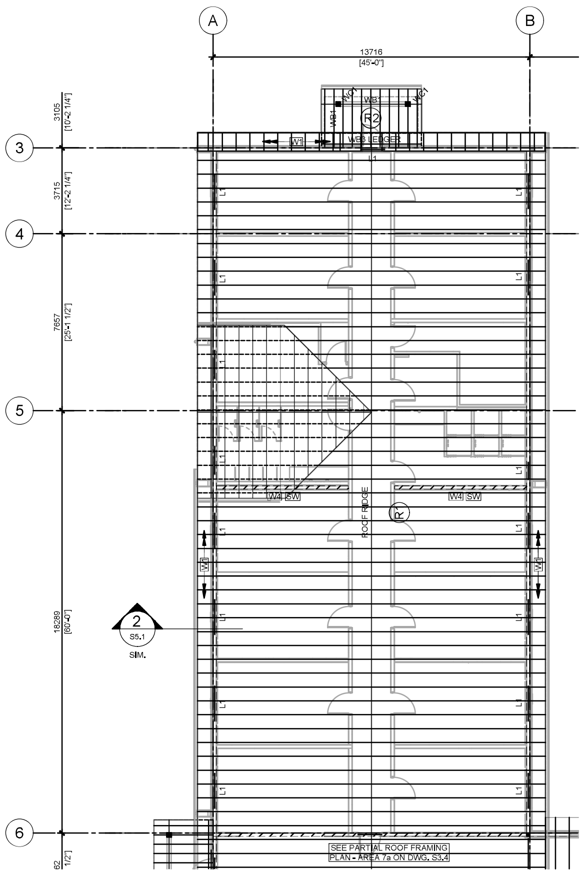
SMOKY LAKE ALBERTA

DRAWING

PARTIAL ROOF FRAMING PLANS

FILE:	23-1843-004S
PROJECT No.:	TWS 23-1843-004S
SCALE:	AS SHOWN
DATE:	2023-12-14
DRAWN BY:	GN
DRAWING No: S3.1	REVISION A

PLOT DATE: June 14, 2024
PLOTTED BY: GREGORIO NISPEROS

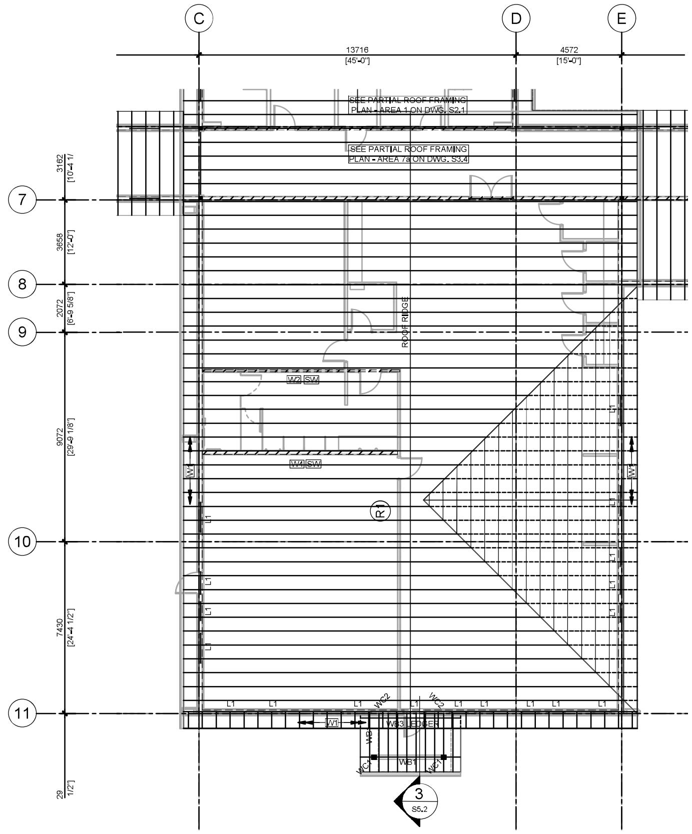


PARTIAL ROOF FRAMING PLAN - AREA 3

SCALE 1:100

NORTH

1. SEE GENERAL AND STRUCTURAL NOTES ON DRAWING S0.1.
2. SEE TYPICAL DETAILS ON DRAWING S0.2.
3. CONTRACTOR TO COORDINATE ALL DIMENSIONS AND ELEVATIONS SHOWN WITH ARCHITECTURAL DRAWINGS PRIOR TO COMMENCING OF WORK.
4. TRUSS JOISTS AND ALL MISCELLANEOUS ITEMS FOR ROOF FRAMING SHALL BE DESIGNED BY JOIST SUPPLIER.
5. ALL DIMENSIONS AND ELEVATIONS SHALL BE VERIFIED ON SITE PRIOR TO JOISTS FABRICATION.
4. PROVIDE JOIST BRIDGING AS REQUIRED SPACED AT 2400mm MAX TOP & BOTTOM CHORD.
5. REFER TO ARCHITECTURAL DRAWINGS FOR ROOF SLOPES.
6. COORDINATE LOCATION AND SIZE OF ROOF OPENINGS AND ROOF HATCH WITH ARCHITECTURAL AND MECHANICAL DRAWINGS.
7. ZZZZZ - REFERS TO SHEARWALL, SEE DETAIL AND SCHEDULE ON DWG. S4.1



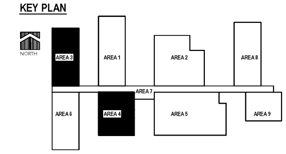
PARTIAL ROOF FRAMING PLAN - AREA 4

SCALE 1:100

NORTH

1. SEE GENERAL AND STRUCTURAL NOTES ON DRAWING S0.1.
2. SEE TYPICAL DETAILS ON DRAWING S0.2.
3. CONTRACTOR TO COORDINATE ALL DIMENSIONS AND ELEVATIONS SHOWN WITH ARCHITECTURAL DRAWINGS PRIOR TO COMMENCING OF WORK.
4. TRUSS JOISTS AND ALL MISCELLANEOUS ITEMS FOR ROOF FRAMING SHALL BE DESIGNED BY JOIST SUPPLIER.
5. ALL DIMENSIONS AND ELEVATIONS SHALL BE VERIFIED ON SITE PRIOR TO JOISTS FABRICATION.
4. PROVIDE JOIST BRIDGING AS REQUIRED SPACED AT 2400mm MAX TOP & BOTTOM CHORD.
5. REFER TO ARCHITECTURAL DRAWINGS FOR ROOF SLOPES.
6. COORDINATE LOCATION AND SIZE OF ROOF OPENINGS AND ROOF HATCH WITH ARCHITECTURAL AND MECHANICAL DRAWINGS
7. ZZZZZ - REFERS TO SHEARWALL, SEE DETAIL AND SCHEDULE ON DWG. S4.1

KEY PLAN



ROOF FRAMING SCHEDULE (R)

MARK	DESCRIPTION
R1	WOOD ROOF TRUSS @ 600mm O.C.
R2	38x235 (2x10) @ 400mm O.C. SPF NO.1/2

NOTES:
- WOOD TRUSS TO BE DESIGNED BY WOOD SUPPLIER.
- ALL WOOD TRUSSES TO BE STAMPED BY SUPPLIER'S ENGINEER
- PROVIDE BRIDGING @ 8'-0" O.C. (MAX.)
- ALL DOUBLE JOIST (D.J.) BEARING ON WALL TO BE SUPPORTED WITH MIN 3-STUDS AT WALL SUPPORT LOCATIONS.

WOOD BEAM SCHEDULE

MARK	SIZE	SPECIES/GRADE
WB1	3-PLY 38x286 (2x12)	P.T. / SPF NO. 1/2
WB2	3-PLY 1 3/4" x 11 7/8" LVL	3100Fb-2.0E
WB3	38x286 (2x12)	P.T. / SPF NO. 1/2
WB4	3-PLY 1 3/4" x 16" LVL	3100Fb-2.0E

WOOD COLUMN SCHEDULE (WC)

MARK	SIZE	SPECIES / GRADE
WC1	184x184 (8x8)	P.T. / SPF NO. 1/2
WC2	4PLY 38x140 (2x6)	SPF NO. 1/2
WC3	3PLY 38x184 (2x8)	SPF NO. 1/2
WC4	5 1/4" x 5 1/4 PSL	1.8E PARALLAM

WOOD LINTEL BEAM SCHEDULE (L)

MARK	SIZE	SPECIES/GRADE
L1	3PLY 1 3/4" x 7 1/4" LVL C/W T&B PLATE 2 JACK STUDS E.S 2 CONT. STUD E.S	3100FB-2.0E - HEADER SPF NO. 1/2 - STUDS/PLATES
L2	3PLY 1 3/4" x 9 1/4" LVL C/W T&B PLATE 2 JACK STUDS E.S 2 CONT. STUD E.S	3100FB-2.0E - HEADER SPF NO. 1/2 - STUDS/PLATES

WOOD STUD WALL SCHEDULE (W)

MARK	DESCRIPTION
W1	38x140 (2x6) @ 400mm O.C.
W2	38x89 (2x4) @ 400mm O.C.
W3	38x184 (2x8) @ 400mm O.C.
W4	38x140 (2x6) @ 400mm O.C.

NOTE: PROVIDE HORIZONTAL BLOCKING TO MATCH STUD SIZE @ 1200mm O.C. SPACED VERTICALLY.

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G:\2023\1800 - 1899\1843 MELEWKA STRUCTURES & DESIGN\23-1843-004 METIS NATIONS OF AB COMMUNITY RECOVERY\S3 20 WD\WORKING\DETAILS\23-1843-004S.DWG
LAYOUT: S3.2
PAPER SIZE: ARCH D
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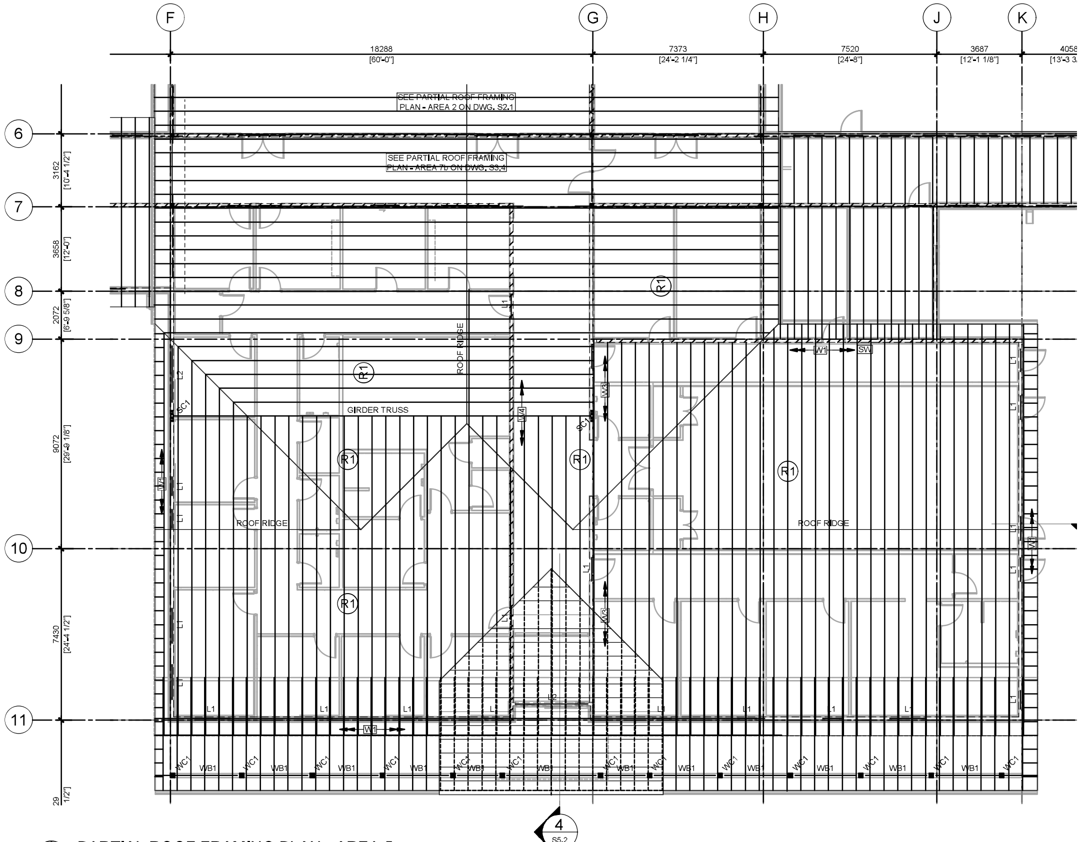


PARTIAL ROOF FRAMING PLAN - AREA 5

SCALE 1:100

NORTH

1. SEE GENERAL AND STRUCTURAL NOTES ON DRAWING S0.1.
2. SEE TYPICAL DETAILS ON DRAWING S0.2.
3. CONTRACTOR TO COORDINATE ALL DIMENSIONS AND ELEVATIONS SHOWN WITH ARCHITECTURAL DRAWINGS PRIOR TO COMMENCING OF WORK.
4. TRUSS JOISTS AND ALL MISCELLANEOUS ITEMS FOR ROOF FRAMING SHALL BE DESIGNED BY JOIST SUPPLIER.
5. ALL DIMENSIONS AND ELEVATIONS SHALL BE VERIFIED ON SITE PRIOR TO JOISTS FABRICATION.
4. PROVIDE JOIST BRIDGING AS REQUIRED SPACED AT 2400mm MAX TOP & BOTTOM CHORD.
5. REFER TO ARCHITECTURAL DRAWINGS FOR ROOF SLOPES.
6. COORDINATE LOCATION AND SIZE OF ROOF OPENINGS AND ROOF HATCH WITH ARCHITECTURAL AND MECHANICAL DRAWINGS.
7. [ZZZZZ] - REFERS TO SHEARWALL, SEE DETAIL AND SCHEDULE ON DWG. S4.1

ROOF FRAMING SCHEDULE (R)

MARK	DESCRIPTION
R1	WOOD ROOF TRUSS @ 600mm O.C.
R2	38x235 (2x10) @ 400mm O.C. SPF NO.1/2

NOTES:
- WOOD TRUSS TO BE DESIGNED BY WOOD SUPPLIER.
- ALL WOOD TRUSSES TO BE STAMPED BY SUPPLIER'S ENGINEER
- PROVIDE BRIDGING @ 8'-0" O.C. (MAX.)
- ALL DOUBLE JOIST (D.J.) BEARING ON WALL TO BE SUPPORTED WITH MIN. 3-STUDS AT WALL SUPPORT LOCATIONS.

STEEL COLUMN SCHEDULE ('SC')

MARK	SIZE	GRADE
SC1	HSS 102x102x6.4	350W

NOTE:
1. SEE BASE PLATE DETAILS ON DWG. ___

WOOD BEAM SCHEDULE

MARK	SIZE	SPECIES/GRADE
WB1	3-PLY 38x286 (2x12)	P.T. / SPF NO. 1/2
WB2	3-PLY 1 3/4" x 11 7/8" LVL	3100Fb-2.0E
WB3	38x286 (2x12)	P.T. / SPF NO. 1/2
WB4	3-PLY 1 3/4" x 16" LVL	3100Fb-2.0E

WOOD COLUMN SCHEDULE (WC)

MARK	SIZE	SPECIES / GRADE
WC1	184x184 (8x8)	P.T. / SPF NO. 1/2
WC2	4PLY 38x140 (2x6)	SPF NO. 1/2
WC3	3PLY 38x184 (2x8)	SPF NO. 1/2
WC4	5 1/4" x 5 1/4 PSL	1.8E PARALLAM

WOOD LINTEL BEAM SCHEDULE (L)

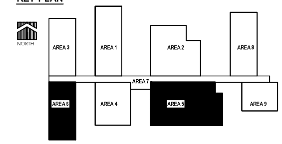
MARK	SIZE	SPECIES/GRADE
L1	3PLY 1 3/4" x 7 1/4" LVL C/W T&B PLATE 2 JACK STUDS E.S 2 CONT. STUD E.S	3100FB-2.0E -HEADER SPF NO. 1/2 - STUDS/PLATES
L2	3PLY 1 3/4" x 9 1/4" LVL C/W T&B PLATE 2 JACK STUDS E.S 2 CONT. STUD E.S	3100FB-2.0E - HEADER SPF NO. 1/2 - STUDS/PLATES

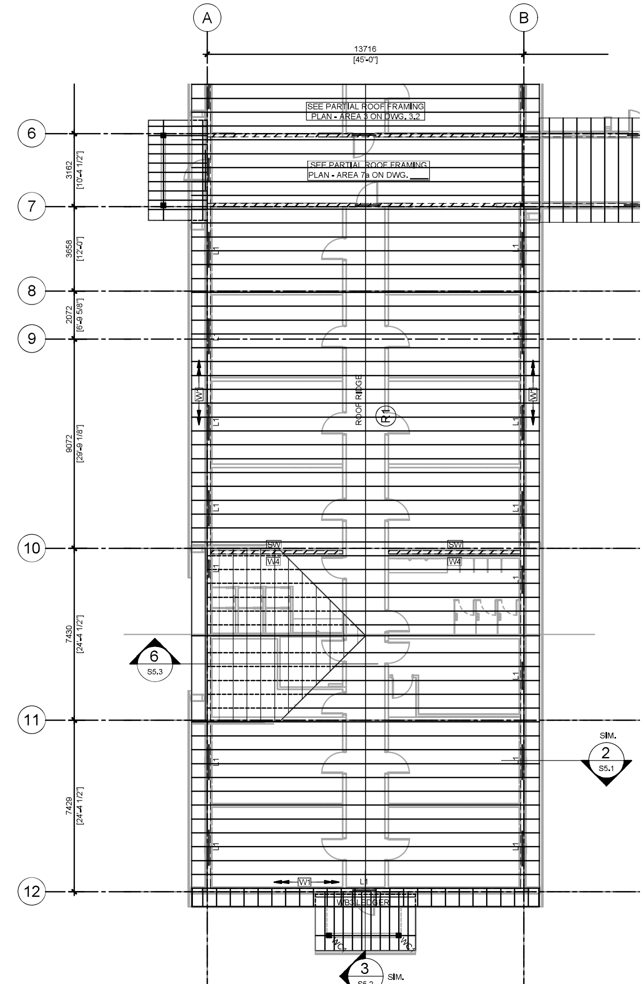
WOOD STUD WALL SCHEDULE (W)

MARK	DESCRIPTION
W1	38x140 (2x6) @ 400mm O.C.
W2	38x89 (2x4) @ 400mm O.C.
W3	38x184 (2x8) @ 400mm O.C.
W4	38x140 (2x6) @ 400mm O.C.

NOTE: PROVIDE HORIZONTAL BLOCKING TO MATCH STUD SIZE @ 1200mm O.C. SPACED VERTICALLY.

KEY PLAN





PARTIAL ROOF FRAMING PLAN - AREA 6

SCALE 1:100

NORTH

1. SEE GENERAL AND STRUCTURAL NOTES ON DRAWING S0.1.
2. SEE TYPICAL DETAILS ON DRAWING S0.2.
3. CONTRACTOR TO COORDINATE ALL DIMENSIONS AND ELEVATIONS SHOWN WITH ARCHITECTURAL DRAWINGS PRIOR TO COMMENCING OF WORK.
4. TRUSS JOISTS AND ALL MISCELLANEOUS ITEMS FOR ROOF FRAMING SHALL BE DESIGNED BY JOIST SUPPLIER.
5. ALL DIMENSIONS AND ELEVATIONS SHALL BE VERIFIED ON SITE PRIOR TO JOISTS FABRICATION.
4. PROVIDE JOIST BRIDGING AS REQUIRED SPACED AT 2400mm MAX TOP & BOTTOM CHORD.
5. REFER TO ARCHITECTURAL DRAWINGS FOR ROOF SLOPES.
6. COORDINATE LOCATION AND SIZE OF ROOF OPENINGS AND ROOF HATCH WITH ARCHITECTURAL AND MECHANICAL DRAWINGS.
7. [ZZZZZ] - REFERS TO SHEARWALL, SEE DETAIL AND SCHEDULE ON DWG. S4.1

NOTES:

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CONSULTANT/SEALS

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B	ISSUED FOR CLIENT REVIEW	2024-06-14
A	ISSUED FOR CLIENT REVIEW	2023-12-14

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Phone: (403) 283 8361 Fax: (403) 252 7877

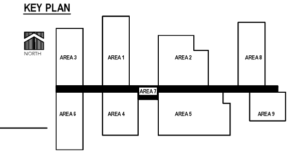
PROJECT
METIS NATION OF AB COMMUNITY RECOVERY CENTER
SMOKY LAKE ALBERTA

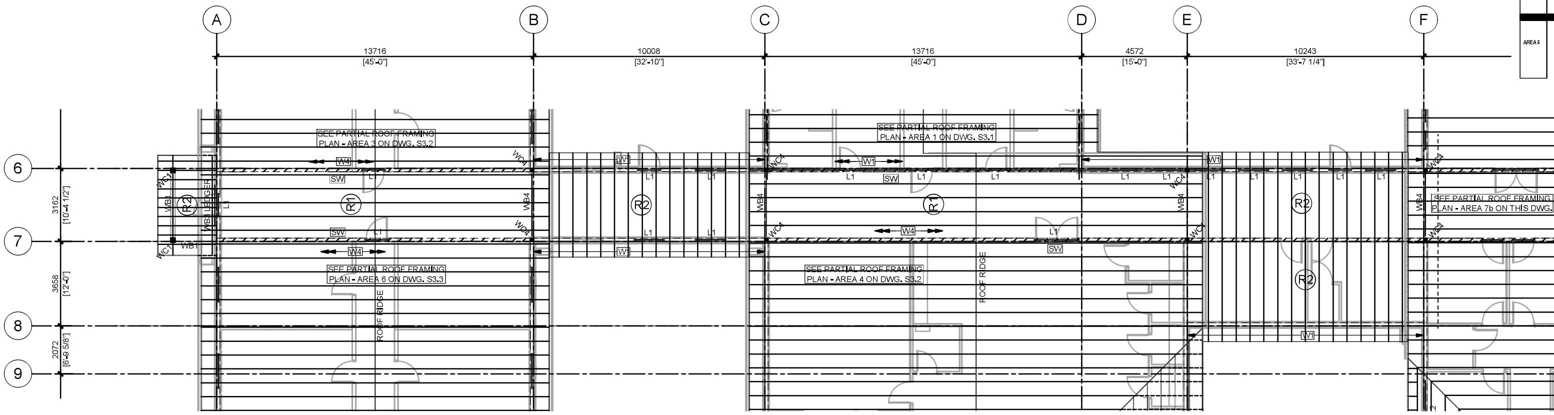
DRAWING
PARTIAL ROOF FRAMING PLANS

FILE:	23-1843-004S
PROJECT No.:	TWS 23-1843-004S
SCALE:	AS SHOWN
DATE:	2023-12-14
DRAWN BY:	GN
DRAWING No: S3.3	REVISION A

G:\2023\1800 - 1899\1843 MELEWKA STRUCTURES & DESIGN\23-1843-004 METIS NATIONS OF AB COMMUNITY RECOVERY\S\3 2D WD\WORKING\DETAILS\23-1843-004S.DWG
LAYOUT: S3.3 PAPER SIZE: ARCH D
PLOTTED BY: GREGORIO NISPEROS PLOT DATE: June 14, 2024

KEY PLAN





PARTIAL ROOF FRAMING PLAN - AREA 7a

NORTH

SCALE 1:100

1. SEE GENERAL AND STRUCTURAL NOTES ON DRAWING S0.1.
2. SEE TYPICAL DETAILS ON DRAWING S0.2.
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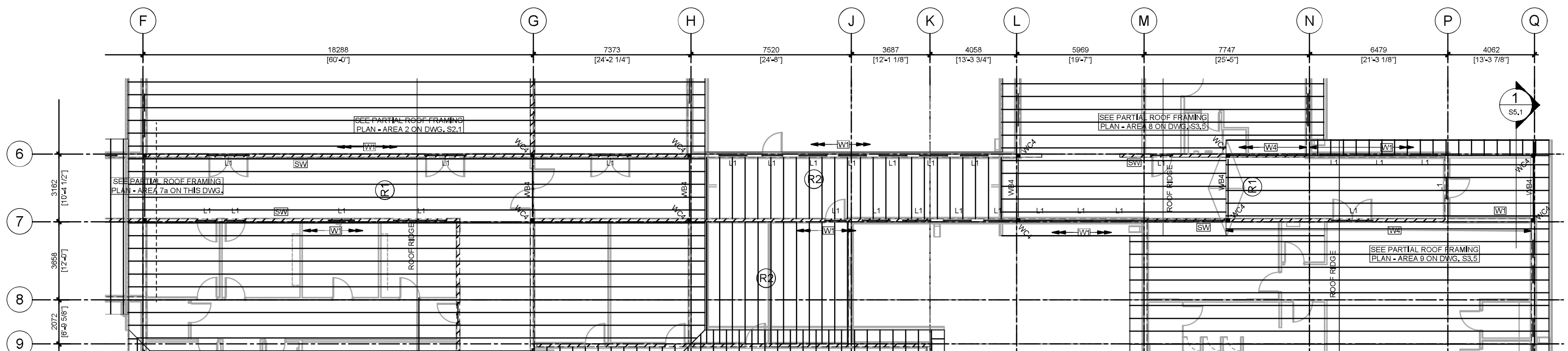
4. PROVIDE JOIST BRIDGING AS REQUIRED SPACED AT 2400mm MAX TOP & BOTTOM CHORD.
5. REFER TO ARCHITECTURAL DRAWINGS FOR ROOF SLOPES.
6. COORDINATE LOCATION AND SIZE OF ROOF OPENINGS AND ROOF HATCH WITH ARCHITECTURAL AND MECHANICAL DRAWING
7. [hatch] REFERS TO SHEARWALL, SEE DETAIL AND SCHEDULE ON DWG. S4.1



PARTIAL ROOF FRAMING PLAN - AREA 7b

NORTH

SCALE 1:100

1. SEE GENERAL AND STRUCTURAL NOTES ON DRAWING S0.1.
2. SEE TYPICAL DETAILS ON DRAWING S0.2.
3. CONTRACTOR TO COORDINATE ALL DIMENSIONS AND ELEVATIONS SHOWN WITH ARCHITECTURAL DRAWINGS PRIOR TO COMMENCING OF WORK.
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7. [hatch] REFERS TO SHEARWALL, SEE DETAIL AND SCHEDULE ON DWG. S4.1

WOOD BEAM SCHEDULE

MARK	SIZE	SPECIES/GRADE
WB1	3-PLY 38x286 (2x12)	P.T. / SPF NO. 1/2
WB2	3-PLY 1 3/4" x 11 7/8" LVL	3100Fb-2.0E
WB3	38x286 (2x12)	P.T. / SPF NO. 1/2
WB4	3-PLY 1 3/4" x 16" LVL	3100Fb-2.0E

ROOF FRAMING SCHEDULE (R)

MARK	DESCRIPTION
R1	WOOD ROOF TRUSS @ 600mm O.C.
R2	38x235 (2x10) @ 400mm O.C. SPF NO.1/2

NOTES:

- WOOD TRUSS TO BE DESIGNED BY WOOD SUPPLIER.
- ALL WOOD TRUSSES TO BE STAMPED BY SUPPLIER'S ENGINEER
- PROVIDE BRIDGING @ 8'-0" O.C. (MAX.)
- ALL DOUBLE JOIST (D.J.) BEARING ON WALL TO BE SUPPORTED WITH MIN 3-STUDS AT WALL SUPPORT LOCATIONS.

WOOD LINTEL BEAM SCHEDULE (L)

MARK	SIZE	SPECIES/GRADE
L1	3PLY 1 3/4" x 7 1/4" LVL C/W T&B PLATE 2 JACK STUDS E.S 2 CONT. STUD E.S	3100FB-2.0E -HEADER SPF NO. 1/2 - STUDS/PLATES
L2	3PLY 1 3/4" x 9 1/4" LVL C/W T&B PLATE 2 JACK STUDS E.S 2 CONT. STUD E.S	3100FB-2.0E - HEADER SPF NO. 1/2 - STUDS/PLATES

WOOD COLUMN SCHEDULE (WC)

MARK	SIZE	SPECIES / GRADE
WC1	184x184 (8x8)	P.T. / SPF NO. 1/2
WC2	4PLY 38x140 (2x6)	SPF NO. 1/2
WC3	3PLY 38x184 (2x8)	SPF NO. 1/2
WC4	5 1/4" x 5 1/4 PSL	1.8E PARALLAM

WOOD STUD WALL SCHEDULE (W)

MARK	DESCRIPTION
W1	38x140 (2x6) @ 400mm O.C.
W2	38x89 (2x4) @ 400mm O.C.
W3	38x184 (2x8) @ 400mm O.C.
W4	38x140 (2x6) @ 400mm O.C.

NOTE: PROVIDE HORIZONTAL BLOCKING TO MATCH STUD SIZE @ 1200mm O.C. SPACED VERTICALLY.

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A	ISSUED FOR CLIENT REVIEW	2023-12-14

CLIENT

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Phone (403) 283 8351 Fax (403) 252 7877

PROJECT

METIS NATION OF AB COMMUNITY RECOVERY CENTER

SMOKY LAKE ALBERTA

DRAWING

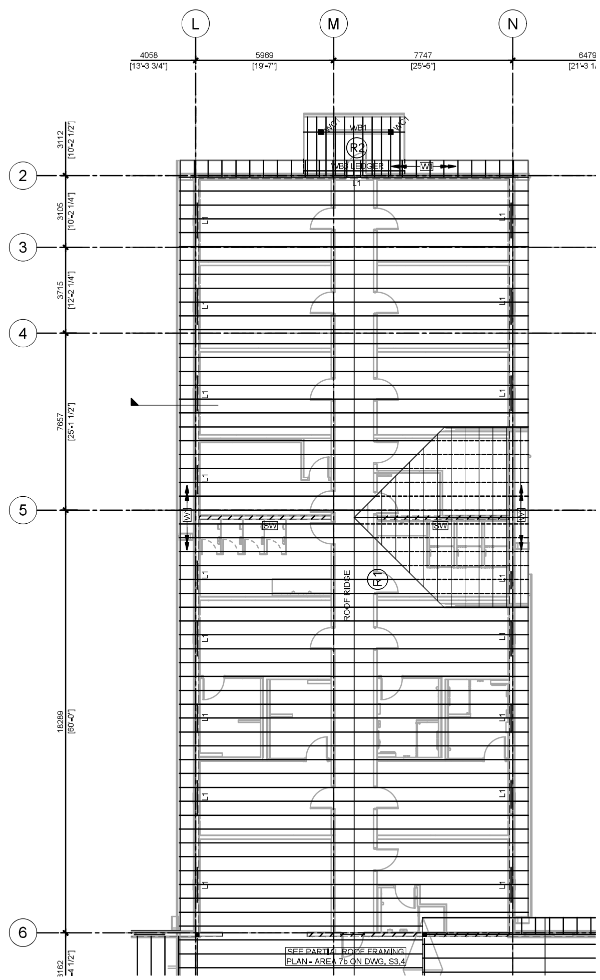
PARTIAL ROOF FRAMING PLANS

FILE:	23-1843-004S
PROJECT No.:	TWS 23-1843-004S
SCALE:	AS SHOWN
DATE:	2023-12-14
DRAWN BY:	GN

DRAWING No: S3.4

REVISION: A

G:\2023\1800 - 1899\1843 MELEWKA STRUCTURES & DESIGN\23-1843-004 METIS NATIONS OF AB COMMUNITY RECOVERY\S3 2D WD\WORKING\DETAILS\23-1843-004S.DWG
LAYOUT: S3.4
PAPER SIZE: ARCH D
PLOT DATE: June 14, 2024
PLOTTED BY: GREGORIO NISPEROS



PARTIAL ROOF FRAMING PLAN - AREA 8
SCALE 1:100

NORTH

1. SEE GENERAL AND STRUCTURAL NOTES ON DRAWING S0.1.
2. SEE TYPICAL DETAILS ON DRAWING S0.2.
3. CONTRACTOR TO COORDINATE ALL DIMENSIONS AND ELEVATIONS SHOWN WITH ARCHITECTURAL DRAWINGS PRIOR TO COMMENCING OF WORK.
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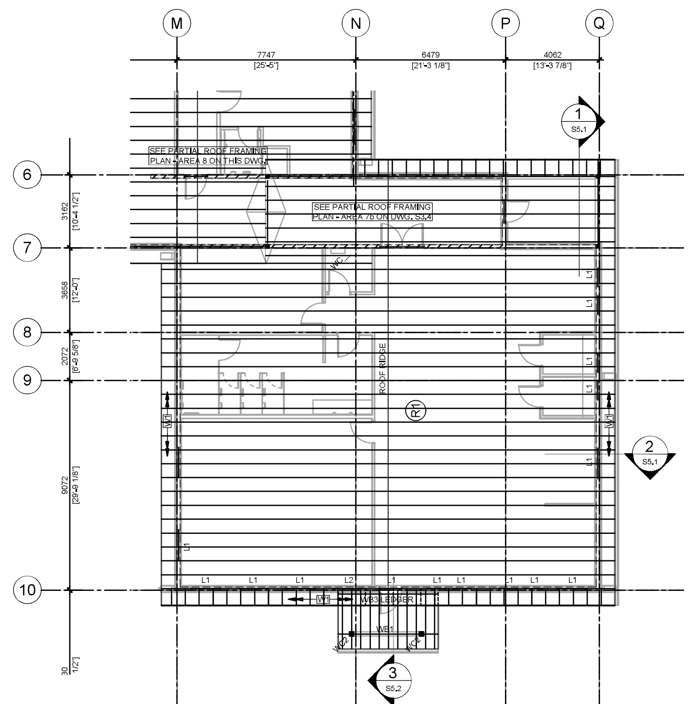
5. REFER TO ARCHITECTURAL DRAWINGS FOR ROOF SLOPES.
6. COORDINATE LOCATION AND SIZE OF ROOF OPENINGS AND ROOF HATCH WITH ARCHITECTURAL AND MECHANICAL DRAWINGS.
7. ////// - REFERS TO SHEARWALL, SEE DETAIL AND SCHEDULE ON DWG. S4.1



PARTIAL ROOF FRAMING PLAN - AREA 9
SCALE 1:100

NORTH

1. SEE GENERAL AND STRUCTURAL NOTES ON DRAWING S0.1.
2. SEE TYPICAL DETAILS ON DRAWING S0.2.
3. CONTRACTOR TO COORDINATE ALL DIMENSIONS AND ELEVATIONS SHOWN WITH ARCHITECTURAL DRAWINGS PRIOR TO COMMENCING OF WORK.
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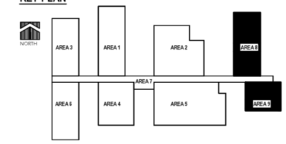
5. REFER TO ARCHITECTURAL DRAWINGS FOR ROOF SLOPES.
6. COORDINATE LOCATION AND SIZE OF ROOF OPENINGS AND ROOF HATCH WITH ARCHITECTURAL AND MECHANICAL DRAWINGS.
7. - REFERS TO SHEARWALL, SEE DETAIL AND SCHEDULE ON DWG. S4.1

KEY PLAN



ROOF FRAMING SCHEDULE (R)

MARK	DESCRIPTION
R1	WOOD ROOF TRUSS @ 600mm O.C.
R2	38x235 (2x10) @ 400mm O.C. SPF NO.1/2

NOTES:
- WOOD TRUSS TO BE DESIGNED BY WOOD SUPPLIER.
- ALL WOOD TRUSSES TO BE STAMPED BY SUPPLIER'S ENGINEER
- PROVIDE BRIDGING @ 8'-0" O.C. (MAX.)
- ALL DOUBLE JOIST (D.J.) BEARING ON WALL TO BE SUPPORTED WITH MIN 3-STUDS AT WALL SUPPORT LOCATIONS.

WOOD BEAM SCHEDULE

MARK	SIZE	SPECIES/GRADE
WB1	3-PLY 38x286 (2x12)	P.T. / SPF NO. 1/2
WB2	3-PLY 1 3/4" x 11 7/8" LVL	3100Fb-2.0E
WB3	38x286 (2x12)	P.T. / SPF NO. 1/2
WB4	3-PLY 1 3/4" x 16" LVL	3100Fb-2.0E

WOOD COLUMN SCHEDULE (WC)

MARK	SIZE	SPECIES / GRADE
WC1	184x184 (8x8)	P.T. / SPF NO. 1/2
WC2	4PLY 38x140 (2x6)	SPF NO. 1/2
WC3	3PLY 38x184 (2x8)	SPF NO. 1/2
WC4	5 1/4" x 5 1/4 PSL	1.8E PARALLAM

WOOD LINTEL BEAM SCHEDULE (L)

MARK	SIZE	SPECIES/GRADE
L1	3PLY 1 3/4" x 7 1/4" LVL C/W T&B PLATE 2 JACK STUDS E.S 2 CONT. STUD E.S	3100FB-2.0E -HEADER SPF NO. 1/2 - STUDS/PLATES
L2	3PLY 1 3/4" x 9 1/4" LVL C/W T&B PLATE 2 JACK STUDS E.S 2 CONT. STUD E.S	3100FB-2.0E - HEADER SPF NO. 1/2 - STUDS/PLATES

WOOD STUD WALL SCHEDULE (W)

MARK	DESCRIPTION
W1	38x140 (2x6) @ 400mm O.C.
W2	38x89 (2x4) @ 400mm O.C.
W3	38x184 (2x8) @ 400mm O.C.
W4	38x140 (2x6) @ 400mm O.C.

NOTE: PROVIDE HORIZONTAL BLOCKING TO MATCH STUD SIZE @ 1200mm O.C. SPACED VERTICALLY.

CONSULTANT/SEALS

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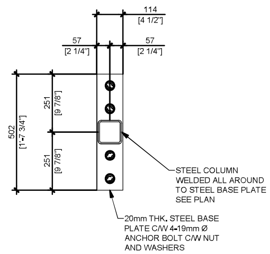
Phone: (403) 283 6351 Fax: (403) 252 7877

PROJECT
METIS NATION OF AB COMMUNITY RECOVERY CENTER
SMOKY LAKE ALBERTA

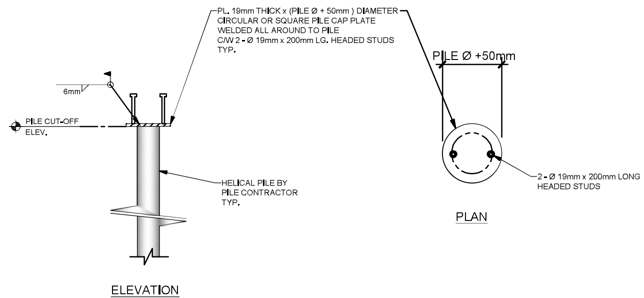
DRAWING
PARTIAL ROOF FRAMING PLANS

FILE:	23-1843-004S
PROJECT No.:	TWS 23-1843-004S
SCALE:	AS SHOWN
DATE:	2023-12-14
DRAWN BY:	GN
DRAWING No: S3.5	REVISION A

G:\2023\1800 - 1899\1843 MELEWKA STRUCTURES & DESIGN\23-1843-004 METIS NATIONS OF AB COMMUNITY RECOVERY\S3 2D WORK\WORKING\DETAILS\23-1843-004S.DWG
LAYOUT: S3.5
PAPER SIZE: ARCH D
PLOT DATE: June 14, 2024
PLOTTED BY: GREGORIO NIEPEROS



DETAIL - STEEL BASE PLATE (BP1)
SCALE 1:10



DETAIL - PILE CAP PLATE
SCALE 1:20

NOTES:

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PROJECT

METIS NATION OF AB COMMUNITY RECOVERY CENTER

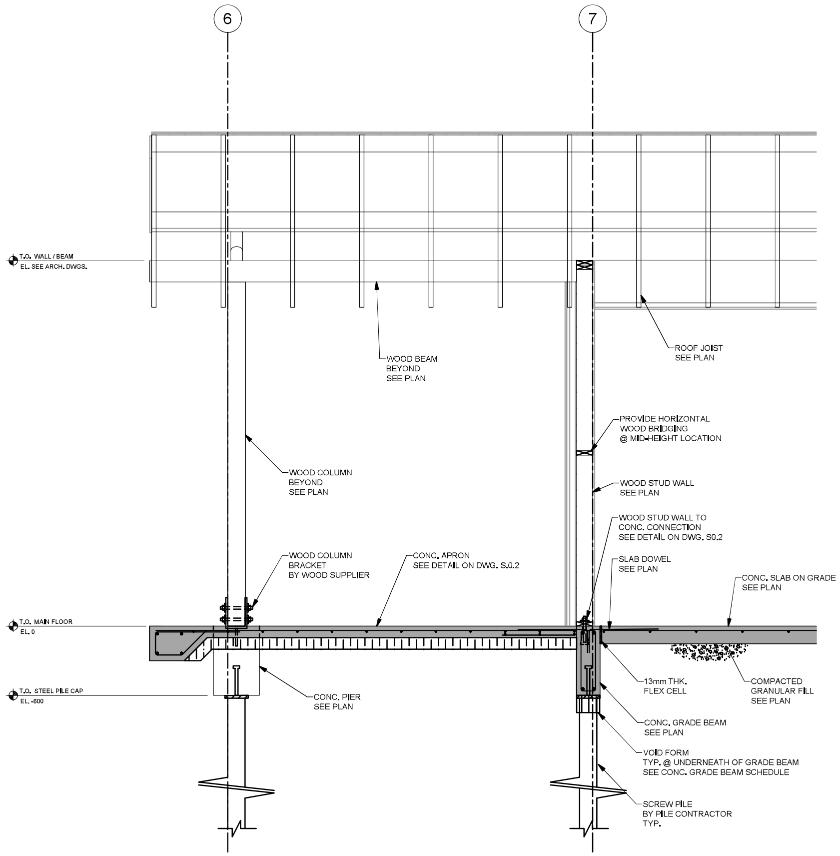
SMOKY LAKE ALBERTA

DRAWING

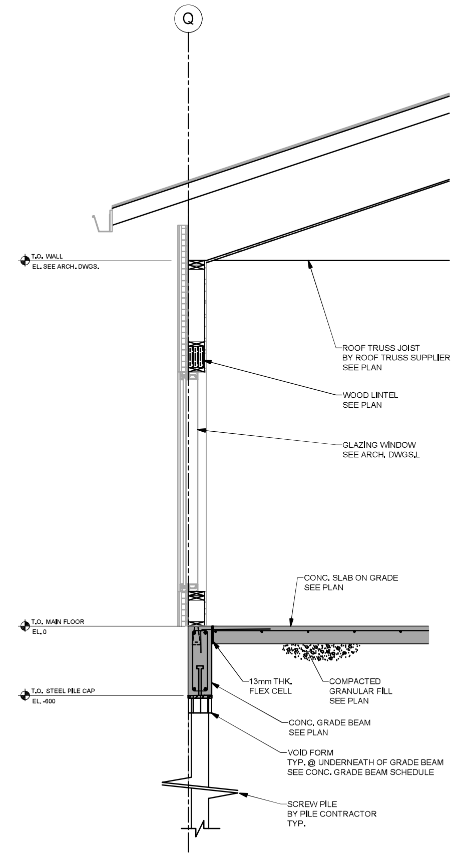
DETAILS

FILE:	23-1843-004S
PROJECT No.:	TWS 23-1843-004S
SCALE:	AS SHOWN
DATE:	2023-12-14
DRAWN BY:	GN
DRAWING No: S4.1	REVISION A

G:\2023\1800 - 1899\1843 MELEWKA STRUCTURES & DESIGN\23-1843-004 METIS NATIONS OF AB COMMUNITY RECOVERY\S\3 2D WD\WORKING\DETAILS\23-1843-004S.DWG
LAYOUT: S4.1 PAPER SIZE: ARCH D
PLOTTED BY: GREGORIO NISPEROS PLOT DATE: June 14, 2024



SECTION 1
SCALE REF.?



SECTION 2
SCALE REF.?

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A	ISSUED FOR CLIENT REVIEW	2023-12-14

CLIENT

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380, 5689 - 2 Street S.W., Calgary, Alberta. T2H 0H3
Phone: (403) 283 6351 Fax: (403) 252 7077

PROJECT

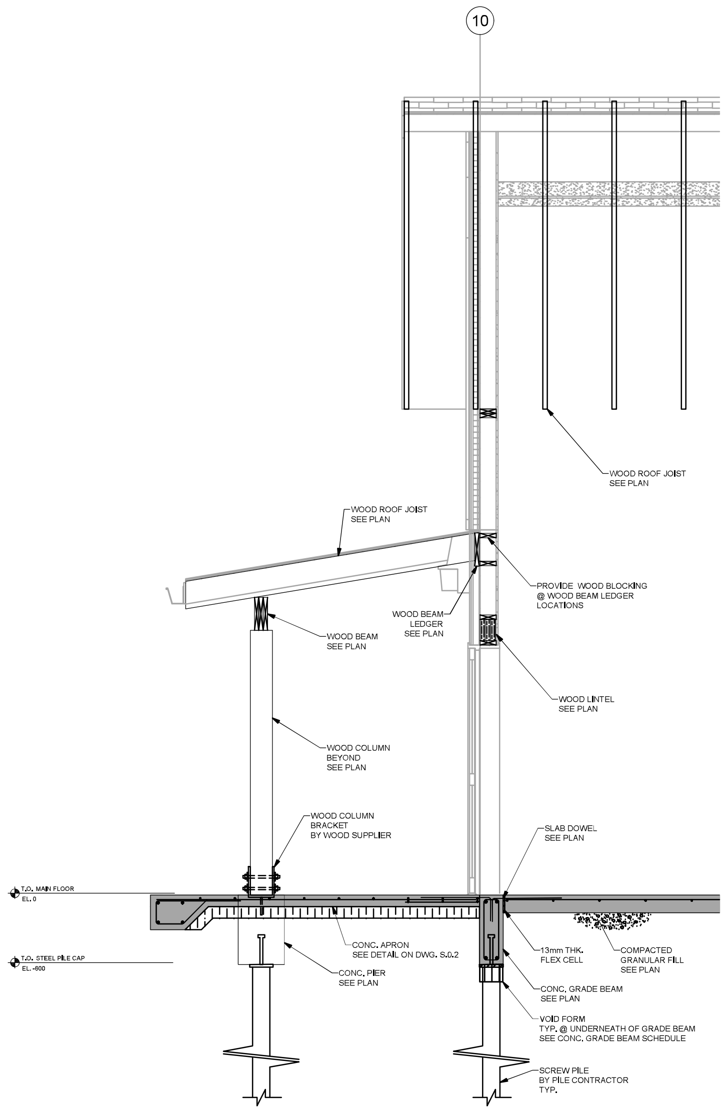
METIS NATION OF AB COMMUNITY RECOVERY CENTER

SMOKY LAKE ALBERTA

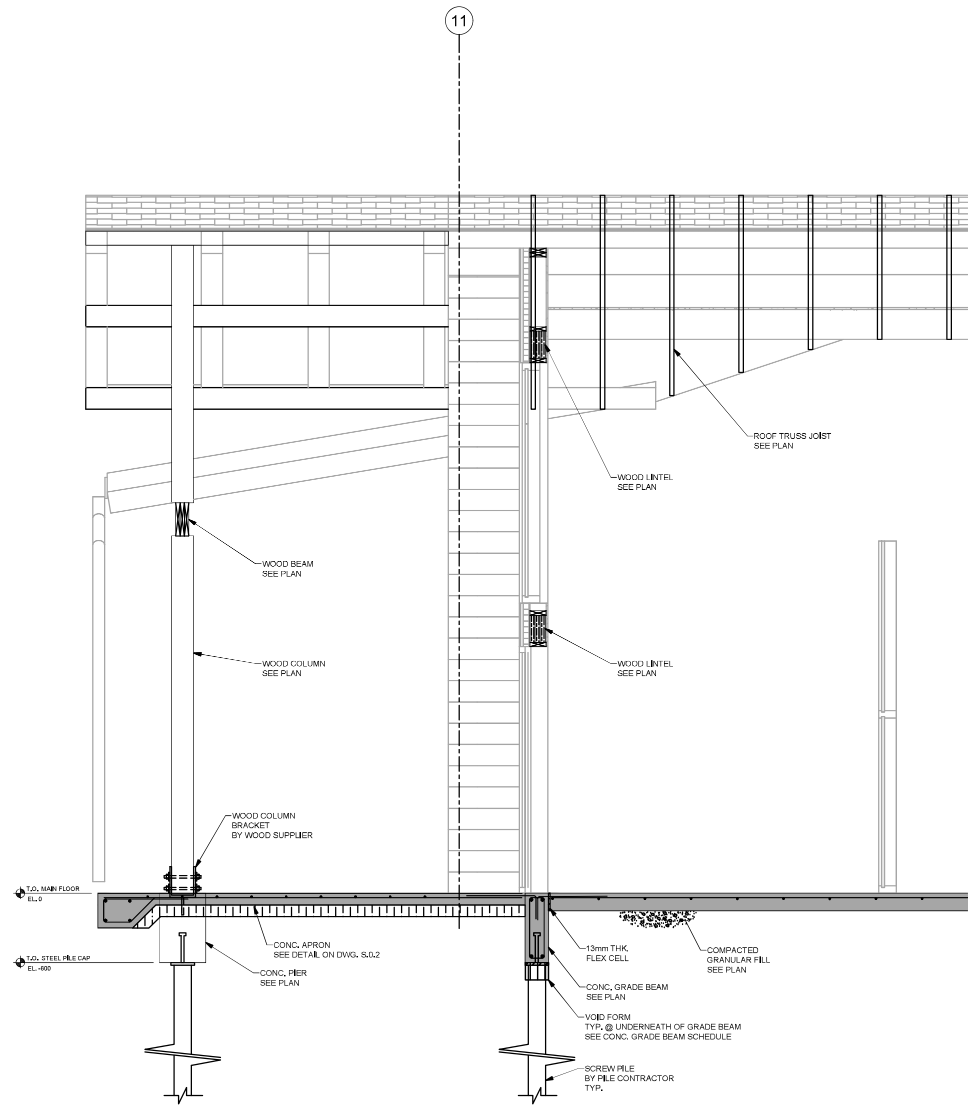
DRAWING

SECTIONS

FILE:	23-1843-004S
PROJECT No.:	TWS 23-1843-004S
SCALE:	AS SHOWN
DATE:	2023-12-14
DRAWN BY:	GN
DRAWING No.: S5.1	REVISION: A



SECTION 3
SCALE REF.?



SECTION 4
SCALE REF.?

NOTES:

These drawings are drawn to the scale indicated for reference only. KUMLIN SULLIVAN ARCHITECTURE STUDIO LTD. is not responsible for scaling of these drawings.

Verify all dimensions, elevations, and datums, and report any discrepancies to the Architect prior to construction.

All drawings remain the property of the Architect.

This drawing supercedes previous issues.

Dimensions are taken to face of exterior sheathing, face of concrete block, face of stud for interior partitions, and centreline of demising walls, unless noted otherwise on the drawing.

CONSULTANT/SEALS

PRELIMINARY
NOT FOR CONSTRUCTION

TWS Engineering Ltd.
STRUCTURAL | MECHANICAL
ELECTRICAL | CIVIL CONSULTING

B	ISSUED FOR CLIENT REVIEW	2024-06-14
A	ISSUED FOR CLIENT REVIEW	2023-12-14

CLIENT

MELEWKA STRUCTURES & DESIGN

KUMLIN SULLIVAN ARCHITECTURE STUDIO LTD.
380, 5809 - 2 Street S.W., Calgary, Alberta, T2H 0H3
Phone: (403) 283 8361 Fax: (403) 252 7877

PROJECT

METIS NATION OF AB COMMUNITY RECOVERY CENTER

SMOKY LAKE ALBERTA

DRAWING

SECTIONS

FILE:	23-1843-004S
PROJECT No.:	TWS 23-1843-004S
SCALE:	AS SHOWN
DATE:	2023-12-14
DRAWN BY:	GN

DRAWING No: S5.2

REVISION: A

G:\2023\1800 - 1899\1843 MELEWKA STRUCTURES & DESIGN\23-1843-004 METIS NATIONS OF AB COMMUNITY RECOVERY\S\3 2D WDWORKING\DETAILS\23-1843-004S.DWG
LAYOUT: S5.2 PAPER SIZE: ARCH D
PLOTTED BY: GREGORIO NISPEROS PLOT DATE: June 14, 2024

Shelby Engineering Ltd.
#172, 2693 Broadmoor Boulevard, Sherwood Park, AB T8H 0G1
[redacted]

To:	**Lewis Semashkewich**	**From:**	**Nathaniel Gomez, E.I.T.**
Office:	Melewka Structures & Designs	**Pages:**	2 (including this page)
Email:	[redacted]	**Date:**	May 29, 2024
File # :	1-24462	**Cc:**	[redacted]
Project:	Recovery Center – Lot 15, Range Road 174A, Smoky Lake, AB		

PRELIMINARY FINDINGS AND FOUNDATION RECOMMENDATIONS

Twelve test holes were advanced for this development to depths ranging from 2.3m to 14.95m below grade. The general stratigraphy encountered at the test hole locations comprised surficial topsoil underlain by native silt/sand followed by a variable glacial till deposit comprising silt, sand and clay till. Draft test hole logs and a site plan are attached.

Surficial topsoil was encountered at each test hole location and extended to depths ranging from 150mm to 275mm. Trace amounts of topsoil were noted in the upper portion of the native deposit up to 600mm below grade. The silt was generally soft to stiff and moist to wet. The sand was generally loose to compact and moist to saturated. The clay till was generally stiff to very stiff and moist.

Groundwater and slough accumulation was recorded upon completion of drilling at each test hole location to depths up to 2.0m and 2.1m, respectively. Water seepage was noted during drilling starting from depths as shallow as 900mm below grade.

The depths indicate below are referenced to site grades as existed at the time of the geotechnical drilling. Appropriate adjustments must be made to the depths with consideration to any difference between the referenced grades and final grades.

The following preliminary foundation options are considered feasible to support proposed development:

Table 1: Shallow Footings

Footing Type	Factored ULS Base Resistance	SLS Bearing Pressure
Strip	75 kPa	50 kPa
Square	90 kPa	60 kPa

- ULS based on Geotechnical Resistance Factor (Φ) of 0.5
- Must be founded on native inorganic soil, not on fill/topsoil

- Minimum depth of cover of 1.5m required for perimeter footings in heated structures
- Use of a mud slab will be required to protect the subgrade

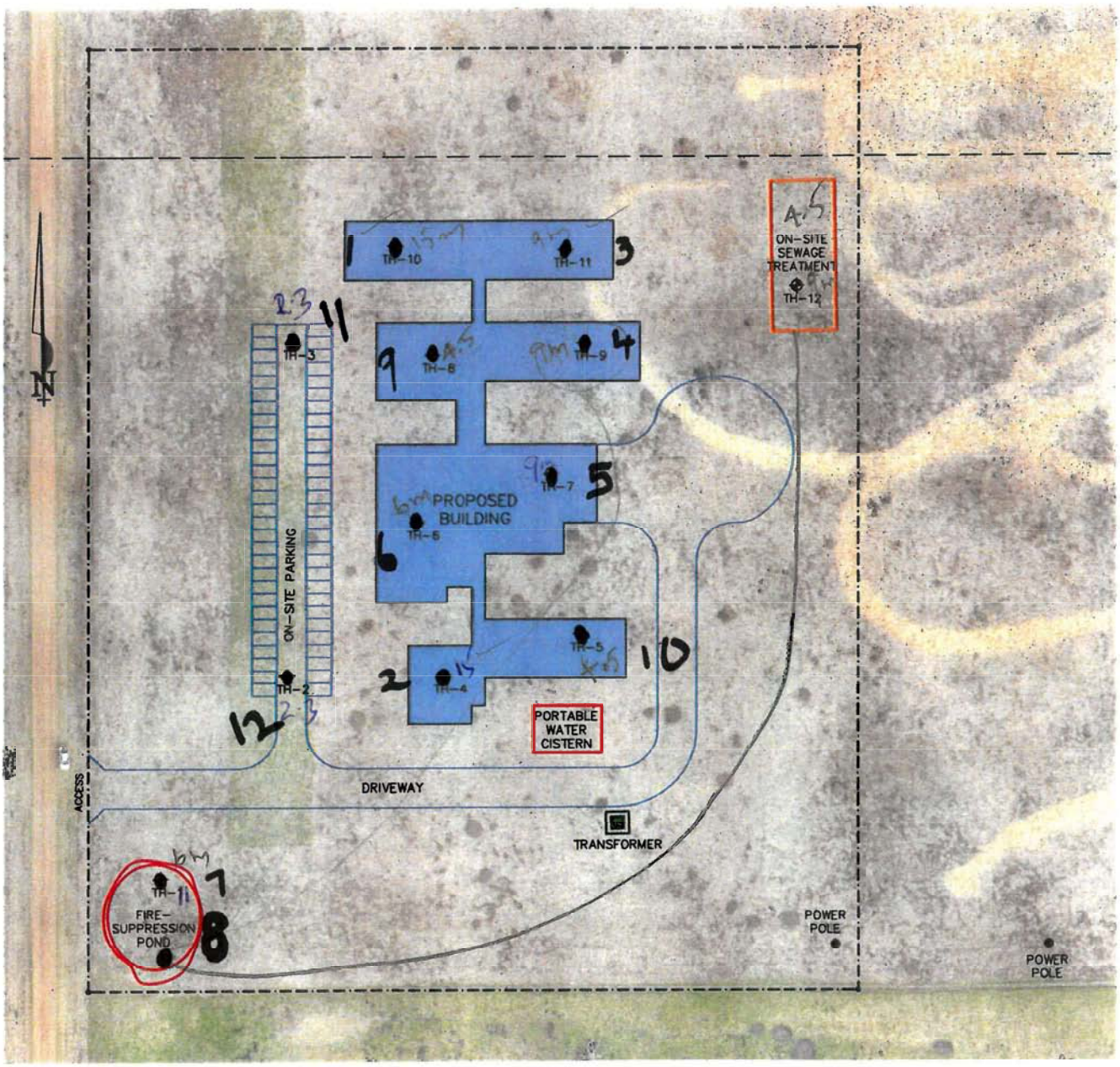
Table 2: Cast-In-Place Concrete Friction Piles

Depth Below Existing Grade (m)	Factored ULS Skin Friction (kPa)
0.0 to 1.5	0
1.5 to 3.0	18
3.0 to 9.0	20
9.0 to 15.0	23
Below 15.0	25

- ULS based on Geotechnical Resistance Factor (Φ) of 0.4
- Minimum pile length of 6.0m; Minimum pile diameter of 400mm
- Casing should be available and used to control seepage and sloughing
- If long piles are needed, consideration could be given to the use of CFA piles. The design of CFA piles installed to depths below 9.0m from existing grade can also utilize a factored ULS base resistance value of 450kPa, used in combination with skin friction

The information provided above is preliminary, and subject to revision in whole or in part upon completion of laboratory testing.

Nathaniel Gomez, E.I.T.


TH-10
TH-11
TH-3
TH-8
TH-9
TH-7
PROPOSED BUILDING
TH-6
TH-5
TH-2
TH-4
ON-SITE PARKING
ON-SITE SEWAGE TREATMENT
TH-12
PORTABLE WATER CISTERN
DRIVEWAY
ACCESS
TRANSFORMER
TH-1
FIRE-SUPPRESSION POND
POWER POLE
POWER POLE
N

RECOVERY CENTRE	MELEWKA STRUCTURES & DESIGNS	TEST HOLE NO.: TH-01
LOT 15 RR 174A SMOKY LAKE, AB	START DATE: 5/23/24	PROJECT NO.: 1-24462
PROJECT ENGINEER: VG	SOLID STEM AUGERS AND SPTS	ELEVATION.:

SAMPLE TYPE: GRAB | SHELBY TUBE | SPT | NO RECOVERY | HOLLOW STEM | CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

POCKET PEN (kPa) 100 200 300 400

STANDARD PENETRATION (N) 20 40 60 80

PLASTIC M.C. LIQUID 20 40 60 80

Depth (m)	Sample Type	Sample No.	SPT (N)	SOIL DESCRIPTION	USC	Soil Symbol	Additional Testing	Elevation (m)
0.0		1		TOPSOIL: To 250mm.	OR			
				SILT: Sandy, firm, low plastic, moist, light brown, trace oxides to 600mm.	ML			
		2		SAND: Silty, fine grained, moist, brown, trace oxides to 1.1m.	SM			
1.0		3	8	-trace gravel, clay till lumps from 900mm.				
		4		CLAY TILL: Silty, sandy, stiff to very stiff, medium plastic, moist, brown, trace gravel, oxides to 6.9m.				
2.0		5						
		6	10	-trace coal from 2.4m.				
3.0		7		-trace sand pockets from 3.0m.				
		8						
4.0		9	36	-brown and dark grey from 3.8m.	TILL		Water seepage from 4.0m.	
				-150mm thick saturated sand layer at 4.0m.				
		10		-dark grey from 4.0m.				
				-trace silt pockets from 4.6m.				
5.0		11						
		12	10	-150mm thick silt layer, sandy, low plastic, moist, dark grey, trace oxides, clay lumps at 5.3m.				
				-stiff, trace sand lenses from 5.5m.				
6.0		13						
		14						
7.0		15	9	SAND: Silty, fine grained, saturated, dark grey, trace clay lumps to 11.3m.				
				-loose from 7.0m.				
		16					Poor sample recovery from auger at 7.5m.	
8.0		17						
		18	13	-compact, trace oxides from 8.5m.			Poor sample recovery from auger at 8.3m.	
9.0		19			SM			
		20						

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LOGGED BY: MD	COMPLETION DEPTH: 14.95 m
REVIEWED BY: SD	COMPLETION DATE: 5/23/24
FIGURE NO.: 3	Page 1 of 2

RECOVERY CENTRE	MELEWKA STRUCTURES & DESIGNS	TEST HOLE NO.: TH-01
LOT 15 RR 174A SMOKY LAKE, AB	START DATE: 5/23/24	PROJECT NO.: 1-24462
PROJECT ENGINEER: VG	SOLID STEM AUGERS AND SPTS	ELEVATION.:

SAMPLE TYPE: GRAB | SHELBY TUBE | SPT | NO RECOVERY | HOLLOW STEM | CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

POCKET PEN (kPa) 100 200 300 400

STANDARD PENETRATION (N) 20 40 60 80

PLASTIC M.C. LIQUID 20 40 60 80

Depth (m)	SAMPLE TYPE	SAMPLE NO.	SPT (N)	SOIL DESCRIPTION	USC	SOIL SYMBOL	ADDITIONAL TESTING	Elevation (m)
11.0		21	18	-trace silt pockets from 10.5m.				
		22						
		23		CLAY TILL: Silty, sandy, very stiff, medium plastic, moist, dark grey, trace gravel, oxides to 12.0m.	TILL			
12.0		24	22					
		25		SAND: Silty, fine to medium grained, saturated, dark grey from 12.0m.			Standpipe installed to 12.2m due to sloughing.	
13.0		26						
		27	31	-medium to coarse grained, trace gravel from 13.1m.	SM			
		28		-trace clay lumps from 13.7m.				
14.0		29						
		30	26	CLAY TILL: Silty, sandy, very stiff, medium plastic, moist, dark grey, trace gravel, sand pockets to 14.95m.	TILL			
15.0				DEPTH OF TEST HOLE 14.95 METRES WATER AT 2.3 METRES UPON COMPLETION SLOUGH TO 6.7 METRES UPON COMPLETION STANDPIPE INSTALLED				
16.0								
17.0								
18.0								
19.0								

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FIGURE NO.: 3	Page 2 of 2

RECOVERY CENTRE	MELEWKA STRUCTURES & DESIGNS	TEST HOLE NO.: TH-02
LOT 15 RR 174A SMOKY LAKE, AB	START DATE: 5/23/24	PROJECT NO.: 1-24462
PROJECT ENGINEER: VG	SOLID STEM AUGERS AND SPTS	ELEVATION.:

SAMPLE TYPE: GRAB | SHELBY TUBE | SPT | NO RECOVERY | HOLLOW STEM | CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

POCKET PEN (kPa) 100 200 300 400

STANDARD PENETRATION (N) 20 40 60 80

PLASTIC M.C. LIQUID 20 40 60 80

Depth (m)	Sample Type	Sample No.	SPT (N)	SOIL DESCRIPTION	USC	Soil Symbol	Additional Testing	Elevation (m)
0.0	GRAB	1		TOPSOIL: To 275mm.	OR			
				SILT: Sandy, soft to firm, low plastic, moist, light grey, trace oxides, white deposits, rootlets to 600mm.	ML			
1.0	SPT	2	10	SAND: Silty, fine grained, moist, trace oxides to 1.4m.	SM			
		3		-loose to compact from 900mm.				
	GRAB	4		CLAY TILL: Silty, sandy, very stiff, medium plastic, moist, dark grey, some sand, trace gravel, oxides, white deposits to 2.1m.	TILL		Water seepage from 1.8m.	
2.0	SPT	5		SAND: Fine to medium grained, saturated, brown, trace oxides to 5.2m.				
		6	22	-compact, some clay lumps, trace white deposits from 2.4m.				
3.0	GRAB	7						
		8			SA			
4.0	SPT	9	20	-dark brown and grey from 3.8m.				
	GRAB	10						
5.0		11		CLAY TILL: Silty, sandy, stiff, medium plastic, moist, dark grey, trace gravel, oxides to 14.5m.				
	SPT	12	10					
6.0	GRAB	13		-trace sand pockets from 6.1m.				
		14						
7.0		15	15					
	GRAB	16						
8.0		17						
	SPT	18	18					
9.0	GRAB	19						
	SPT	20			TILL			

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LOGGED BY: MD	COMPLETION DEPTH: 14.50 m
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FIGURE NO.: 4	Page 1 of 2

RECOVERY CENTRE	MELEWKA STRUCTURES & DESIGNS	TEST HOLE NO.: TH-02
LOT 15 RR 174A SMOKY LAKE, AB	START DATE: 5/23/24	PROJECT NO.: 1-24462
PROJECT ENGINEER: VG	SOLID STEM AUGERS AND SPTS	ELEVATION.:

SAMPLE TYPE: GRAB | SHELBY TUBE | SPT | NO RECOVERY | HOLLOW STEM | CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	POCKET PEN (kPa) 100 200 300 400 / STANDARD PENETRATION (N) 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	SAMPLE TYPE	SAMPLE NO.	SPT (N)	SOIL DESCRIPTION	USC	SOIL SYMBOL	ADDITIONAL TESTING	Elevation (m)
11.0			21	18				No SPTs after 10.35m due to sloughing.	
12.0			22						
13.0			23						
14.0			24						
15.0			25						
16.0			26						
17.0			27						
18.0									
19.0									

DEPTH OF TEST HOLE 14.5 METRES
WATER AT 2.0 METRES UPON COMPLETION
SLOUGH TO 2.1 METRES UPON COMPLETION
BACKFILLED

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REVIEWED BY: SD	COMPLETION DATE: 5/23/24
FIGURE NO.: 4	Page 2 of 2

RECOVERY CENTRE	MELEWKA STRUCTURES & DESIGNS	TEST HOLE NO.: TH-03
LOT 15 RR 174A SMOKY LAKE, AB	START DATE: 5/23/24	PROJECT NO.: 1-24462
PROJECT ENGINEER: VG	SOLID STEM AUGERS AND SPTS	ELEVATION.:

SAMPLE TYPE: GRAB | SHELBY TUBE | SPT | NO RECOVERY | HOLLOW STEM | CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

POCKET PEN (kPa) 100 200 300 400

STANDARD PENETRATION (N) 20 40 60 80

PLASTIC M.C. LIQUID 20 40 60 80

Depth (m)	Sample Type	Sample No.	SPT (N)	SOIL DESCRIPTION	USC	Soil Symbol	Additional Testing	Elevation (m)
		1		TOPSOIL: To 250mm.	OR			
				SAND: Silty, fine grained, moist, dark brown, trace oxides, clay lumps, rootlets to 600mm.	SA			
		2		CLAY: Silty, some white deposits, firm, medium plastic, brown, trace oxides, coal to 1.2m.	CI		SPT bouncing on rock.	
1.0		3						
		4		CLAY TILL: Silty, sandy, very stiff, medium plastic, moist, dark brown, trace gravel, oxides, coal, sand pockets to 5.9m.				
2.0		5		-trace silt pockets from 2.2m				
		6	28	-trace ironstones from 2.3m.			Water seepage from 2.3m.	
3.0		7		-dark grey from 3.0m.				
		8			TILL			
4.0		9	15					
		10		-trace white deposits from 4.6m.				
5.0		11						
		12	20					
6.0		13		SAND: Silty, fine grained, saturated, dark grey, trace clay lumps to 7.2m.	SA			
		14						
7.0		15	11					
		16		CLAY TILL: Silty, sandy, stiff, medium plastic, moist, dark grey, trace gravel to 8.85m. -trace sand pockets from 7.6m.	TILL			
8.0		17						
		18	11					
9.0				DEPTH OF TEST HOLE 8.85 METRES WATER AT 4.4 METRES UPON COMPLETION SLOUGH TO 4.6 METRES UPON COMPLETION BACKFILLED				

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LOGGED BY: MD	COMPLETION DEPTH: 8.85 m
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FIGURE NO.: 5	Page 1 of 1

RECOVERY CENTRE	MELEWKA STRUCTURES & DESIGNS	TEST HOLE NO.: TH-04
LOT 15 RR 174A SMOKY LAKE, AB	START DATE: 5/27/24	PROJECT NO.: 1-24462
PROJECT ENGINEER: VG	SOLID STEM AUGERS AND SPTS	ELEVATION.:

SAMPLE TYPE: GRAB | SHELBY TUBE | SPT | NO RECOVERY | HOLLOW STEM | CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

POCKET PEN (kPa) 100 200 300 400

STANDARD PENETRATION (N) 20 40 60 80

PLASTIC M.C. LIQUID 20 40 60 80

Depth (m)	Sample Type	Sample No.	SPT (N)	SOIL DESCRIPTION	USC	Soil Symbol	Additional Testing	Elevation (m)
0.0	GRAB	1		TOPSOIL: To 150mm.	OR			
				SAND: Silty, fine grained, moist, brown, trace oxides to 2.9m.				
1.0		2		-trace clay lumps from 650mm.				
	SHELBY TUBE	3	14	-compact from 800mm.				
	GRAB	4		-wet from 1.5m.	SA			
2.0								
	SHELBY TUBE	5						
		6	14	-saturated, trace gravel from 2.3m.				
3.0	GRAB	7		CLAY TILL: Silty, sandy, stiff, medium plastic, moist, dark grey, trace gravel, oxides, sand pockets to 3.8m.	TILL			
		8						
4.0	SHELBY TUBE	9	16	SILT: Low plastic, wet, dark grey, trace sand, clay lumps to 6.7m.				
	GRAB	10						
5.0		11			ML			
	SHELBY TUBE	12	34				No SPTs after 5.8m due to sloughing.	
6.0	GRAB	13						
		14		CLAY TILL: Silty, sandy, very stiff, medium plastic, dark grey, trace gravel, silt lenses to 8.85m.				
7.0								
		15			TILL			
8.0	GRAB	16						
				DEPTH OF TEST HOLE 8.4 METRES DRY UPON COMPLETION SLOUGH TO 2.1 METRES UPON COMPLETION BACKFILLED				
9.0								

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LOGGED BY: MD	COMPLETION DEPTH: 8.40 m
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FIGURE NO.: 6	Page 1 of 1

RECOVERY CENTRE	MELEWKA STRUCTURES & DESIGNS	TEST HOLE NO.: TH-05
LOT 15 RR 174A SMOKY LAKE, AB	START DATE: 5/27/24	PROJECT NO.: 1-24462
PROJECT ENGINEER: VG	SOLID STEM AUGERS AND SPTS	ELEVATION.:

SAMPLE TYPE: GRAB | SHELBY TUBE | SPT | NO RECOVERY | HOLLOW STEM | CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

POCKET PEN (kPa) 100 200 300 400

STANDARD PENETRATION (N) 20 40 60 80

PLASTIC M.C. LIQUID 20 40 60 80

Depth (m)	Sample Type	Sample No.	SPT (N)	SOIL DESCRIPTION	USC	Soil Symbol	Additional Testing	Elevation (m)
0.0		1		TOPSOIL: To 200mm.	OR			
				SAND: Silty, fine grained, moist, dark brown, trace topsoil, rootlets to 600mm.	SA			
		2		SILT: Low plastic, light brown, some clay, trace oxides, rootlets to 900mm.	ML			
1.0		3	16	SAND: Silty, fine grained, moist, brown, trace oxides, clay lumps to 1.4m.	SA			
		4		CLAY TILL: Silty, sandy, very stiff, medium plastic, moist, dark grey, trace gravel, oxides, sand pockets to 4.0m.				
2.0		5		-trace ironstones from 2.3m.				
		6	11		TILL			
3.0		7					Water seepage from 3.2m.	
		8						
4.0		9	19	SAND: Silty, fine grained, compact, saturated, brown, trace oxides to 5.5m.				
		10		-trace clay lumps from 4.6m.	SA			
5.0		11						
		12	7	CLAY TILL: Silty, sandy, stiff, medium plastic, moist, dark grey, trace gravel, sand lenses to 8.85m.				
6.0		13						
		14						
7.0		15	14	-very stiff from 6.9m	TILL			
		16						
8.0		17						
		18	22					
9.0				DEPTH OF TEST HOLE 8.85 METRES WATER AT 6.4 METRES UPON COMPLETION SLOUGH TO 7.3 METRES UPON COMPLETION STANDPIPE INSTALLED				

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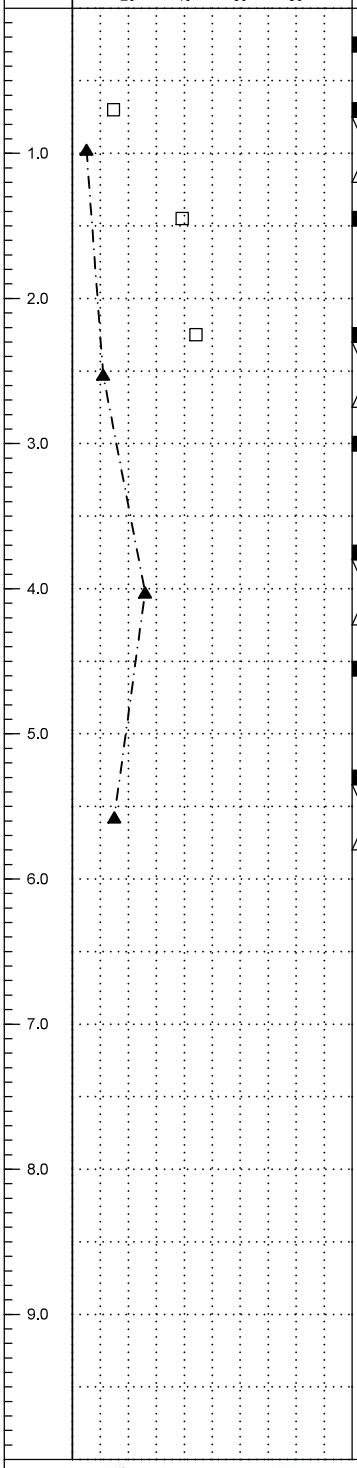
LOGGED BY: MD	COMPLETION DEPTH: 8.85 m
REVIEWED BY: SD	COMPLETION DATE: 5/27/24
FIGURE NO.: 7	Page 1 of 1

RECOVERY CENTRE	MELEWKA STRUCTURES & DESIGNS	TEST HOLE NO.: TH-06
LOT 15 RR 174A SMOKY LAKE, AB	START DATE: 5/27/24	PROJECT NO.: 1-24462
PROJECT ENGINEER: VG	SOLID STEM AUGERS AND SPTS	ELEVATION.:

SAMPLE TYPE: GRAB | SHELBY TUBE | SPT | NO RECOVERY | HOLLOW STEM | CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND



SAMPLE TYPE	SAMPLE NO.	SPT (N)	SOIL DESCRIPTION	USC	SOIL SYMBOL	ADDITIONAL TESTING	Elevation (m)
	1		TOPSOIL: To 150mm.	OR			
			SAND: Fine to medium grained, moist, brown, trace gravel, oxides, rootlets, clay lumps to 600mm.	SA			
	2		CLAY TILL: Silty, sandy, firm, medium plastic, moist, brown, trace gravel, oxides, white deposits to 3.4m.				
	3	5	-trace coal specks from 900mm.				
	4						
				TILL			
	5						
	6	11					
	7		-and sand, saturated from 3.0m.				
			SAND: Silty, fine grained, saturated, brown, trace oxides to 4.4m.				
	8			SA			
	9	26					
			SILT: Non-plastic to low plastic, moist, dark grey, trace sand lenses to 5.2m.				
	10			NP-ML			
			SAND: Silty, fine grained, saturated, brown, trace clay lumps to 5.8m.				
	11			SA			
	12	15					
			DEPTH OF TEST HOLE 5.8 METRES WATER AT 2.4 METRES UPON COMPLETION SLOUGH TO 4.0 METRES UPON COMPLETION BACKFILLED				

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LOGGED BY: MD	COMPLETION DEPTH: 5.80 m
REVIEWED BY: SD	COMPLETION DATE: 5/27/24
FIGURE NO.: 8	Page 1 of 1

RECOVERY CENTRE	MELEWKA STRUCTURES & DESIGNS	TEST HOLE NO.: TH-07
LOT 15 RR 174A SMOKY LAKE, AB	START DATE: 5/27/24	PROJECT NO.: 1-24462
PROJECT ENGINEER: VG	SOLID STEM AUGERS AND SPTS	ELEVATION.:

SAMPLE TYPE: GRAB | SHELBY TUBE | SPT | NO RECOVERY | HOLLOW STEM | CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

POCKET PEN (kPa) 100 200 300 400

STANDARD PENETRATION (N) 20 40 60 80

PLASTIC M.C. LIQUID 20 40 60 80

Depth (m)	SAMPLE TYPE	SAMPLE NO.	SPT (N)	SOIL DESCRIPTION	USC	SOIL SYMBOL	ADDITIONAL TESTING	Elevation (m)
0.0		1		TOPSOIL: To 150mm.	OR			
				SAND: Medium to coarse grained, moist, brown, trace gravel, oxides, rootlets to 600mm.	SA			
		2		CLAY TILL: Silty, sandy, stiff, medium plastic, moist, brown, trace gravel, oxides, white deposits, sand pockets to 800mm.	TILL			
1.0		3	7		SA		Water seepage from 900mm.	
		4		SAND: Silty, loose, fine grained, moist, brown, trace oxides to 1.4m.				
2.0		5		CLAY TILL: Silty, sandy, stiff, medium plastic, moist, brown, trace gravel, oxides, coal, sand pockets to 5.8m				
		6	8					
3.0		7						
		8			TILL			
4.0		9	24	-very stiff from 4.0m.				
		10						
5.0		11						
		12	15	-stiff to very stiff from 5.5m.				
6.0				DEPTH OF TEST HOLE 5.8 METRES WATER AT 4.6 METRES UPON COMPLETION NO SLOUGH UPON COMPLETION BACKFILLED				
7.0								
8.0								
9.0								

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LOGGED BY: MD	COMPLETION DEPTH: 5.80 m
REVIEWED BY: SD	COMPLETION DATE: 5/27/24
FIGURE NO.: 9	Page 1 of 1

RECOVERY CENTRE	MELEWKA STRUCTURES & DESIGNS	TEST HOLE NO.: TH-08
LOT 15 RR 174A SMOKY LAKE, AB	START DATE: 5/27/24	PROJECT NO.: 1-24462
PROJECT ENGINEER: VG	SOLID STEM AUGERS AND SPTS	ELEVATION.:

SAMPLE TYPE: GRAB | SHELBY TUBE | SPT | NO RECOVERY | HOLLOW STEM | CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

POCKET PEN (kPa) 100 200 300 400

STANDARD PENETRATION (N) 20 40 60 80

PLASTIC M.C. LIQUID 20 40 60 80

Depth (m)	SAMPLE TYPE	SAMPLE NO.	SPT (N)	SOIL DESCRIPTION	USC	SOIL SYMBOL	ADDITIONAL TESTING	Elevation (m)
0		1		TOPSOIL: To 250mm.	OR			
				CLAY: Silty, soft, low plastic, moist, dark grey, trace oxides, topsoil, rootlets to 600mm.	CL			
1.0		2		SILT: Soft to firm, low plastic, moist, light grey, trace oxides, white deposits, topsoil to 1.4m.	ML			
		3	12	-trace gravel, sand pockets from 900mm.				
		4		CLAY TILL: Silty, firm to stiff, medium plastic, moist, brown, some sand, trace gravel, oxides, sand pockets to 2.6m.	TILL		Water seepage from 1.8m.	
2.0		5		-trace coal from 1.8m.				
		6	14					
		7		SAND: Compact, medium to coarse grained, saturated, brown, trace gravel, oxides to 2.9m.	SA			
3.0				SILT: Non-plastic to low plastic, wet, dark grey to 4.0m.	NP-ML			
		8						
4.0		9	46	CLAY TILL: Silty, sandy, hard, medium plastic, moist, dark grey, trace gravel, oxides to 4.3m.	TILL			
				DEPTH OF TEST HOLE 4.3 METRES WATER AT 3.0 METRES UPON COMPLETION SLOUGH TO 3.7 METRES UPON COMPLETION STANDPIPE INSTALLED				
5.0								
6.0								
7.0								
8.0								
9.0								

SHELBY ENGINEERING
#172, 2693 BROADMOOR BLVD.
SHERWOOD PARK, AB
T8H 0G1

LOGGED BY: MD	COMPLETION DEPTH: 4.25 m
REVIEWED BY: SD	COMPLETION DATE: 5/27/24
FIGURE NO.: 10	Page 1 of 1

RECOVERY CENTRE	MELEWKA STRUCTURES & DESIGNS	TEST HOLE NO.: TH-09
LOT 15 RR 174A SMOKY LAKE, AB	START DATE: 5/27/24	PROJECT NO.: 1-24462
PROJECT ENGINEER: VG	SOLID STEM AUGERS AND SPTS	ELEVATION.:

SAMPLE TYPE: GRAB | SHELBY TUBE | SPT | NO RECOVERY | HOLLOW STEM | CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

POCKET PEN (kPa) 100 200 300 400

STANDARD PENETRATION (N) 20 40 60 80

PLASTIC M.C. LIQUID 20 40 60 80

Depth (m)	SAMPLE TYPE	SAMPLE NO.	SPT (N)	SOIL DESCRIPTION	USC	SOIL SYMBOL	ADDITIONAL TESTING	Elevation (m)
0				TOPSOIL: To 250mm.	OR			
		1		SAND: Silty, fine grained, moist, brown, trace gravel, oxides, topsoil, rootlets to 600mm.	SM			
		2		SILT: And sand, low plastic, moist, brown, trace gravel, oxides, white deposits to 900mm.	ML			
1.0		3	7	CLAY TILL: Silty, sandy, firm, medium plastic, moist, dark grey, trace gravel, oxides to 4.3m.				
		4		-trace coal from 1.5m.				
2.0		5						
		6	12	-trace ironstones from 2.3m.	TILL			
3.0		7		-some sand pockets from 2.9m.			Water seepage from 3.0m.	
		8						
4.0		9	32					
				DEPTH OF TEST HOLE 4.3 METRES WATER AT 3.2 METRES UPON COMPLETION SLOUGH TO 3.7 METRES UPON COMPLETION BACKFILLED				
5.0								
6.0								
7.0								
8.0								
9.0								

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SHERWOOD PARK, AB
T8H 0G1

LOGGED BY: MD	COMPLETION DEPTH: 4.25 m
REVIEWED BY: SD	COMPLETION DATE: 5/27/24
FIGURE NO.: 11	Page 1 of 1

RECOVERY CENTRE	MELEWKA STRUCTURES & DESIGNS	TEST HOLE NO.: TH-10
LOT 15 RR 174A SMOKY LAKE, AB	START DATE: 5/27/24	PROJECT NO.: 1-24462
PROJECT ENGINEER: VG	SOLID STEM AUGERS AND SPTS	ELEVATION.:

SAMPLE TYPE: GRAB | SHELBY TUBE | SPT | NO RECOVERY | HOLLOW STEM | CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

POCKET PEN (kPa) 100 200 300 400

STANDARD PENETRATION (N) 20 40 60 80

PLASTIC M.C. LIQUID 20 40 60 80

Depth (m)	SAMPLE TYPE	SAMPLE NO.	SPT (N)	SOIL DESCRIPTION	USC	SOIL SYMBOL	ADDITIONAL TESTING	Elevation (m)
0.0		1		TOPSOIL: To 250mm.	OR			
				SILT: Low plastic, moist, black, some topsoil, trace rootlets, sand to 600mm.	ML			
		2						
1.0		3	8	SAND: Silty, fine grained, moist, brown, trace oxides, silt pockets to 1.4m. -loose, trace gravel from 900mm.	SA			
		4		CLAY TILL: Silty, sandy, very stiff, medium plastic, moist, dark brown, trace gravel, oxides, sand lenses to 3.4m.				
2.0		5						
		6	11	-stiff, trace ironstones from 2.3m.	TILL			
3.0		7						
				SILT: Low plastic, moist, dark brown, trace gravel, oxides, clay lumps to 3.8m.	ML			
		8						
4.0		9	17	CLAY TILL: Silty, sandy, very stiff, medium plastic, moist, dark grey, trace gravel, oxides to 4.3m.	TILL			
				DEPTH OF TEST HOLE 4.3 METRES DRY UPON COMPLETION NO SLOUGH UPON COMPLETION BACKFILLED				
5.0								
6.0								
7.0								
8.0								
9.0								

SHELBY ENGINEERING
#172, 2693 BROADMOOR BLVD.
SHERWOOD PARK, AB
T8H 0G1

LOGGED BY: MD	COMPLETION DEPTH: 4.25 m
REVIEWED BY: SD	COMPLETION DATE: 5/27/24
FIGURE NO.: 12	Page 1 of 1

RECOVERY CENTRE	MELEWKA STRUCTURES & DESIGNS	TEST HOLE NO.: TH-11
LOT 15 RR 174A SMOKY LAKE, AB	START DATE: 5/23/24	PROJECT NO.: 1-24462
PROJECT ENGINEER: VG	SOLID STEM AUGERS	ELEVATION.:

SAMPLE TYPE: GRAB | SHELBY TUBE | SPT | NO RECOVERY | HOLLOW STEM | CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

POCKET PEN (kPa): 100 200 300 400

STANDARD PENETRATION (N): 20 40 60 80

PLASTIC M.C. LIQUID: 20 40 60 80

Depth (m)	SAMPLE TYPE	SAMPLE NO.	SPT (N)	SOIL DESCRIPTION	USC	SOIL SYMBOL	ADDITIONAL TESTING	Elevation (m)
0.0				TOPSOIL: To 200mm.	OR			
		1		CLAY TILL: Silty, sandy, very stiff, medium plastic, moist, trace gravel, oxides, sand lenses, white deposits to 2.3m.				
		2		-trace coal specks from 800mm.				
1.0					TILL			
		3						
2.0								
		4		DEPTH OF TEST HOLE 2.3 METRES DRY UPON COMPLETION NO SLOUGH UPON COMPLETION BACKFILLED				
3.0								
4.0								
5.0								
6.0								
7.0								
8.0								
9.0								

SHELBY ENGINEERING
#172, 2693 BROADMOOR BLVD.
SHERWOOD PARK, AB
T8H 0G1

LOGGED BY: MD	COMPLETION DEPTH: 2.30 m
REVIEWED BY: SD	COMPLETION DATE: 5/23/24
FIGURE NO.: 13	Page 1 of 1

RECOVERY CENTRE	MELEWKA STRUCTURES & DESIGNS	TEST HOLE NO.: TH-12
LOT 15 RR 174A SMOKY LAKE, AB	START DATE: 5/23/24	PROJECT NO.: 1-24462
PROJECT ENGINEER: VG	SOLID STEM AUGERS	ELEVATION.:

SAMPLE TYPE: GRAB | SHELBY TUBE | SPT | NO RECOVERY | HOLLOW STEM | CORE

BACKFILL TYPE: BENTONITE | PEA GRAVEL | SLOUGH | GROUT | DRILL CUTTINGS | SAND

Depth (m)	POCKET PEN (kPa) 100 200 300 400 / STANDARD PENETRATION (N) 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	SAMPLE TYPE	SAMPLE NO.	SPT (N)	SOIL DESCRIPTION	USC	SOIL SYMBOL	ADDITIONAL TESTING	Elevation (m)
1.0			1		TOPSOIL: To 200mm.	OR			
					CLAY TILL: Silty, sandy, stiff, medium plastic, moist, brown, trace gravel, oxides, white deposits, sand lenses to 600mm.	TILL			
			2		CLAY: Silty, firm, medium plastic, brown, trace gravel, oxides, white deposits, sand lenses to 900mm.	CI			
2.0			3		CLAY TILL: Silty, sandy, very stiff, medium plastic, moist, dark grey, trace gravel, oxides, sand pockets to 2.1m.	TILL			
			4		SAND: Silty, fine grained, saturated, grey, trace oxides, clay lumps to 2.3m.	SA			
3.0					DEPTH OF TEST HOLE 2.3 METRES DRY UPON COMPLETION NO SLOUGH UPON COMPLETION BACKFILLED				
4.0									
5.0									
6.0									
7.0									
8.0									
9.0									

SHELBY ENGINEERING
#172, 2693 BROADMOOR BLVD.
SHERWOOD PARK, AB
T8H 0G1

LOGGED BY: MD	COMPLETION DEPTH: 2.30 m
REVIEWED BY: SD	COMPLETION DATE: 5/23/24
FIGURE NO.: 14	Page 1 of 1

SOIL CLASSIFICATION SYSTEM (MODIFIED U.S.C.)

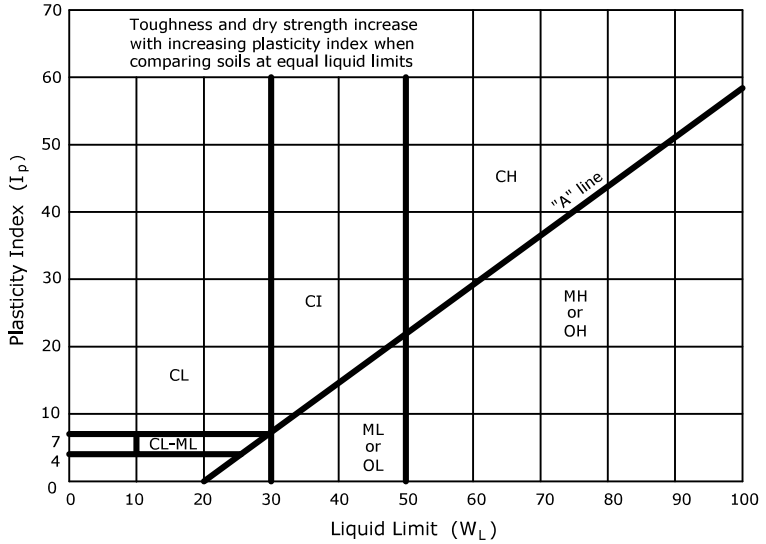
MAJOR DIVISION			GROUP SYMBOL	GRAPHIC SYMBOL	GROUP NAME	LABORATORY CLASSIFICATION CRITERIA
HIGHLY ORGANIC SOILS			PT		PEAT AND OTHER HIGHLY ORGANIC SOILS	STRONG COLOR OR ODOR, AND OFTEN FIBROUS TEXTURE
COARSE-GRAINED SOILS (MORE THAN 50% RETAINED ON NO.200 SIEVE)	GRAVELS (MORE THAN 50% OF COARSE FRACTION RETAINED ON NO.4 SIEVE)	CLEAN GRAVELS (LESS THAN 5% FINES)	GW		WELL-GRADED GRAVELS, GRAVEL-SAND MIXTURES, < 5% FINES	$Cu = \frac{D_{60}}{D_{10}} > 4$ $\quad 1 \le Cc = \frac{(D_{30})^2}{D_{10} \times D_{60}} \le 3$
			GP		POORLY-GRADED GRAVELS, GRAVEL-SAND MIXTURES, < 5% FINES	NOT MEETING ALL ABOVE REQUIREMENTS
		DIRTY GRAVELS (MORE THAN 12% FINES)	GM		SILTY GRAVELS, GRAVEL-SAND-SILT MIXTURES, > 12% FINES	ATTERBERG LIMITS BELOW "A" LINE OR $I_P < 4$
			GC		CLAYEY GRAVELS, GRAVEL-SAND-CLAY MIXTURES, > 12% FINES	ATTERBERG LIMITS ABOVE "A" LINE OR $I_P > 7$
	SANDS (MORE THAN 50% OF COARSE FRACTION PASSES NO. 4 SIEVE)	CLEAN SANDS (LESS THAN 5% FINES)	SW		WELL-GRADED SANDS, GRAVELLY SANDS, < 5% FINES	$Cu > 6$ and $1 \le Cc \le 3$
			SP		POORLY-GRADED SANDS, OR GRAVELLY SANDS, < 5% FINES	NOT MEETING ALL ABOVE REQUIREMENTS
		DIRTY SANDS (MORE THAN 12% FINES)	SM		SILTY SANDS, SAND-SILT MIXTURES, > 12% FINES	ATTERBERG LIMITS BELOW "A" LINE OR $I_P < 4$
			SC		CLAYEY SANDS, SAND-CLAY MIXTURES, > 12% FINES	ATTERBERG LIMITS ABOVE "A" LINE OR $I_P > 7$
FINE-GRAINED SOILS (MORE THAN 50% PASSES NO. 200 SIEVE)	SILTS (BELOW "A" LINE ON PLASTICITY CHART; NEGLIGIBLE ORGANIC CONTENT)		ML		INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SILTY SANDS OF SLIGHT PLASTICITY	$W_L < 50$
			MH		INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS, FINE SANDY OR SILTY SOILS	$W_L > 50$
	CLAYS (ABOVE "A" LINE ON PLASTICITY CHART; NEGLIGIBLE ORGANIC CONTENT)		CL		INORGANIC CLAYS OF LOW PLASTICITY, GRAVELLY, SANDY, OR SILTY CLAYS, LEAN CLAYS	$W_L < 30$
			CI		INORGANIC CLAYS OF MEDIUM PLASTICITY, SILTY CLAYS	$30 < W_L < 50$
			CH		INORGANIC CLAYS OF HIGH PLASTICITY, FAT CLAYS	$W_L > 50$
	ORGANIC SILTS AND ORGANIC CLAYS (BELOW "A" LINE ON PLASTICITY CHART)		OL		ORGANIC SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY	$W_L < 50$
			OH		ORGANIC CLAYS OF HIGH PLASTICITY	$W_L > 50$

SEE PLASTICITY CHART BELOW

1. All sieve sizes mentioned on this chart are U.S. Standard, ASTM E11
2. Boundary classifications possessing characteristics of two groups are given combined group symbols. eg. GW-GC is a well-graded gravel-sand mixture with clay binder of between 5% and 12%.
3. Soil fractions and limiting textural boundaries are in accordance with the Unified Soil Classification System (ASTM D2487), except that an inorganic clay of medium plasticity (CI) is recognized.
4. The following adjectives may be employed to define percentage ranges by weight of minor components (per Canadian Foundation Engineering Manual, 1992):

And	-	35% to 50%
(y/ey)	-	20% to 35%
Some	-	10% to 20%
Trace	-	1% to 10%

PLASTICITY CHART



SHELBY ENGINEERING

SOIL CLASSIFICATION CHART

29 July 2005
File: TRAFFIC IMPACT RECOMMENDATIONS.DOC
Project No.: EDT050055

Wing Choy
2nd fl Provincial Building
4709 – 44 Avenue
Stony Plain T7Z 1N4

Dear Wing,

Re : Hwy 855 /Metis Crossing Intersection
Traffic Impact Assessment

AMEC has been commissioned to conduct a Traffic Impact Assessment at the Hwy 855 / Victoria Trail Intersection where the Métis Crossing project is to be located.

Information contained in this assessment is based on existing mosaics, correspondence with Juanita Marois (Métis Crossing), along with measurements and observations obtained by AMEC Infrastructure Limited (AMEC) during a site inspection

An intersection design system (IDS) analysis was performed using the projected traffic volume given to us by Juanita Marois and traffic volume records obtained from AIT (Alberta Infrastructure and Transportation). Results indicate that the intersection requires Type 3b treatment. The analysis, photos, projected traffic volumes and a plan of a typical Type 3b treatment are attached for your records.

Issues:

- The distance from the north end of the bridge to the intersection is approximately 170m and is equal to the distance required to construct the southwest taper of the intersection. There appears to be no visible obstruction for the remaining three tapers.
- The existing 4 legged intersection is slightly offset with the west leg 4m further south than the right leg.
- Powerpoles on the north side of Victoria Trail appear to be within the existing road right of way.
- Existing guardrail adjacent to the highway extends north from the bridge abutment to the access road and around the flare.
- Site distance in both directions appears to be adequate.
- It assumes that there will be no development to the west of Hwy 855 and only local traffic will be using the west leg.
- Conceptual design provided by Métis Crossing showing development adjacent to Hwy 855 and Victoria Trail.

AMEC Infrastructure Limited
130 Sioux Road
Sherwood Park, Alberta
T8A 3X5
Tel (780) 464-4550
Fax (780) 464-4533
www.amec.com

Recommendations:

- Type 3b intersection treatment.
- Have review meeting with AIT, Métis Crossing and Smoky Lake County.
- After agreement is reached, proceed to preliminary survey and design.
- Complete field survey and preliminary design for review with AIT, Métis Crossing and Smoky Lake County.

Please review and if you have any questions please do not hesitate to call me.

Regards,

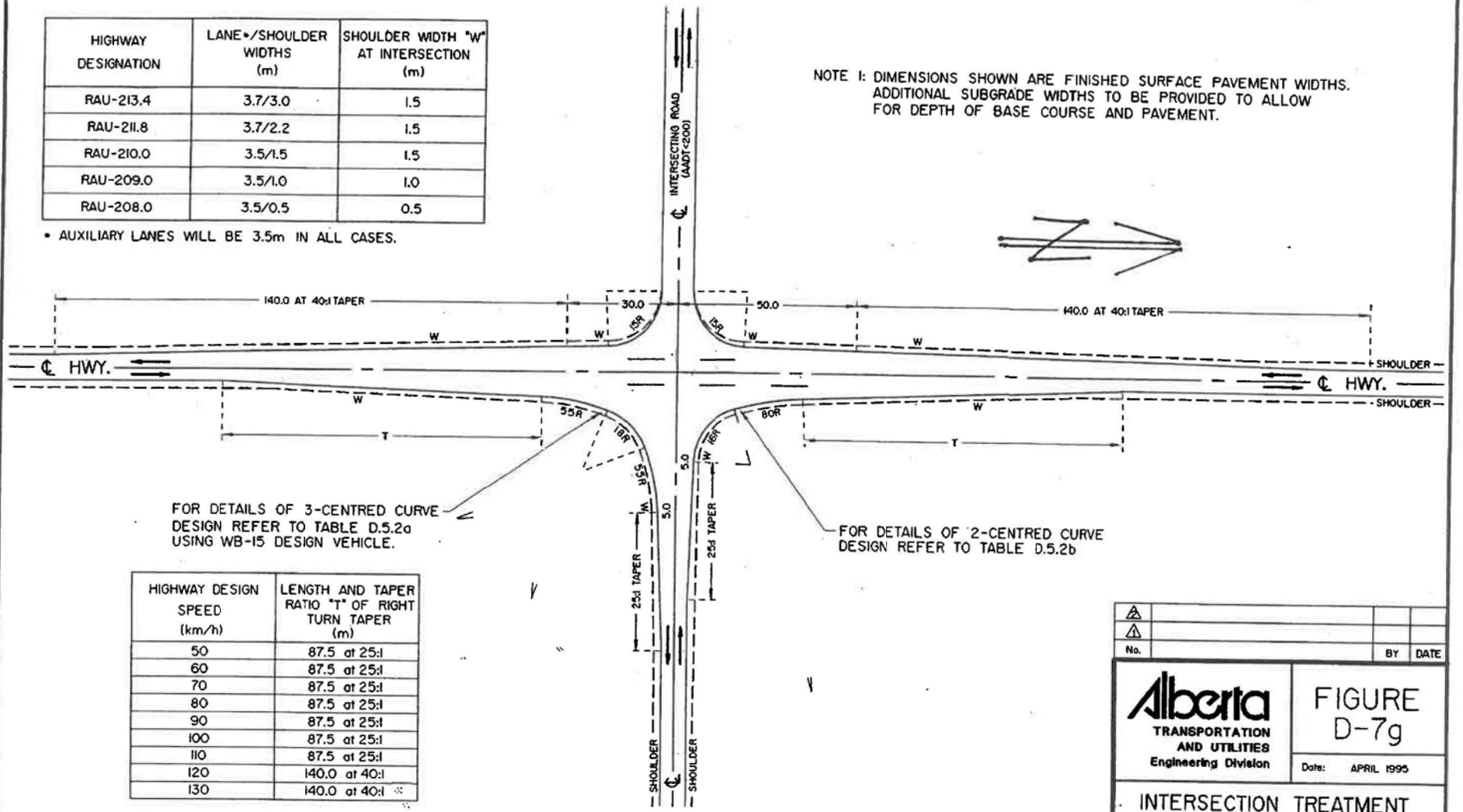
Adam Brown, EIT
Project Engineer

c: Gabe Rohr, AMEC Infrastructure Limited
Hal Cook, AMEC Infrastructure Limited
Juanita Marois, Métis Crossing
Cary Smigerowsky, Smoky Lake County

HIGHWAY DESIGNATION	LANE*/SHOULDER WIDTHS (m)	SHOULDER WIDTH "W" AT INTERSECTION (m)
RAU-213.4	3.7/3.0	1.5
RAU-211.8	3.7/2.2	1.5
RAU-210.0	3.5/1.5	1.5
RAU-209.0	3.5/1.0	1.0
RAU-208.0	3.5/0.5	0.5

* AUXILIARY LANES WILL BE 3.5m IN ALL CASES.

NOTE 1: DIMENSIONS SHOWN ARE FINISHED SURFACE PAVEMENT WIDTHS. ADDITIONAL SUBGRADE WIDTHS TO BE PROVIDED TO ALLOW FOR DEPTH OF BASE COURSE AND PAVEMENT.



HIGHWAY DESIGN SPEED (km/h)	LENGTH AND TAPER RATIO "T" OF RIGHT TURN TAPER (m)
50	87.5 at 25:1
60	87.5 at 25:1
70	87.5 at 25:1
80	87.5 at 25:1
90	87.5 at 25:1
100	87.5 at 25:1
110	87.5 at 25:1
120	140.0 at 40:1
130	140.0 at 40:1

No.		BY	DATE
2			
1			

Alberta
TRANSPORTATION AND UTILITIES
Engineering Division

FIGURE D-7g

Date: APRIL 1995

INTERSECTION TREATMENT TYPE IIIb (TWO-LANE HIGHWAY)

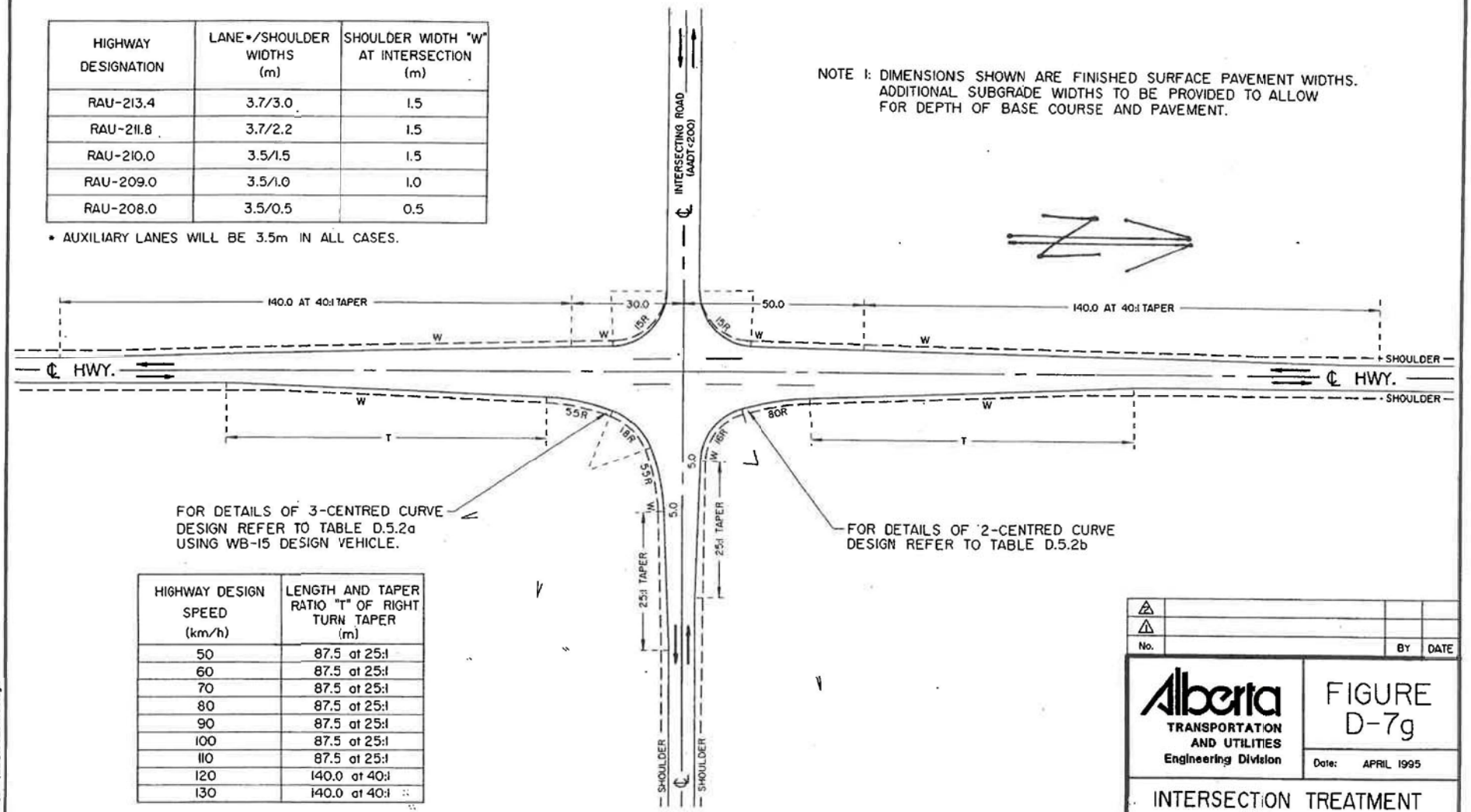
Prepared By: Cgk	Checked By: B.K.	Scale: N.T.S.	PAGE D-125

Graphics File: DE1:[200.221]cb623m66.dgn

HIGHWAY DESIGNATION	LANE*/SHOULDER WIDTHS (m)	SHOULDER WIDTH "W" AT INTERSECTION (m)
RAU-213.4	3.7/3.0	1.5
RAU-211.8	3.7/2.2	1.5
RAU-210.0	3.5/1.5	1.5
RAU-209.0	3.5/1.0	1.0
RAU-208.0	3.5/0.5	0.5

* AUXILIARY LANES WILL BE 3.5m IN ALL CASES.

NOTE 1: DIMENSIONS SHOWN ARE FINISHED SURFACE PAVEMENT WIDTHS. ADDITIONAL SUBGRADE WIDTHS TO BE PROVIDED TO ALLOW FOR DEPTH OF BASE COURSE AND PAVEMENT.



FOR DETAILS OF 3-CENTRED CURVE DESIGN REFER TO TABLE D.5.2a USING WB-15 DESIGN VEHICLE.

FOR DETAILS OF 2-CENTRED CURVE DESIGN REFER TO TABLE D.5.2b

HIGHWAY DESIGN SPEED (km/h)	LENGTH AND TAPER RATIO "T" OF RIGHT TURN TAPER (m)
50	87.5 at 25:1
60	87.5 at 25:1
70	87.5 at 25:1
80	87.5 at 25:1
90	87.5 at 25:1
100	87.5 at 25:1
110	87.5 at 25:1
120	140.0 at 40:1
130	140.0 at 40:1

No.		BY	DATE
2			
1			

Alberta
TRANSPORTATION AND UTILITIES
Engineering Division

FIGURE D-7g

Date: APRIL 1995

INTERSECTION TREATMENT TYPE IIIb (TWO-LANE HIGHWAY)

Prepared By: Cgk	Checked By: B.K.	Scale: N.T.S.	PAGE D-125

Graphics File: DE\f200,221\cb623m66.dgn

Rohr, Gabe

From: Brown, Adam J (Sherwood Park)
Sent: Tuesday, November 15, 2005 10:52 AM
To: Wing.Choy@gov.ab.ca; Holman, Gord
Cc: Rohr, Gabe; Kayne, Glen M; jmarois@metis.org; Rob.Lonson@gov.ab.ca; Andy.Brown@gov.ab.ca; csmigerowsky@smokylakecounty.ab.ca; Brown, Adam J (Sherwood Park)
Subject: RE: Hwy 855 / Metis Crossing Intersection Treatment
Attachments: Traffic Impact Assessment.pdf

Gentlemen,

A copy of the report is attached for your review.

thanks,

Adam

From: Wing.Choy@gov.ab.ca [mailto:Wing.Choy@gov.ab.ca]
Sent: Tuesday, November 15, 2005 8:35 AM
To: Holman, Gord
Cc: Rohr, Gabe; Kayne, Glen M; Brown, Adam J (Sherwood Park); jmarois@metis.org; Rob.Lonson@gov.ab.ca; Andy.Brown@gov.ab.ca; csmigerowsky@smokylakecounty.ab.ca
Subject: RE: Hwy 855 / Metis Crossing Intersection Treatment

Gord

It works for me. See you there.

Can you resend a copy of the report to everybody before the meeting ? Thanks.

Wing

From: Holman, Gord [mailto:gord.holman@amec.com]
Sent: Monday, November 14, 2005 3:47 PM
To: Wing.Choy@gov.ab.ca; jmarois@metis.org; Rob.Lonson@gov.ab.ca; Andy.Brown@gov.ab.ca; csmigerowsky@smokylakecounty.ab.ca
Cc: Rohr, Gabe; Kayne, Glen M; Brown, Adam J (Sherwood Park)
Subject: RE: Hwy 855 / Metis Crossing Intersection Treatment

We can have Wednesday morning at 10:00am if that will work better for everyone

---

From: Wing.Choy@gov.ab.ca [mailto:Wing.Choy@gov.ab.ca]
Sent: Monday, November 14, 2005 3:32 PM
To: Holman, Gord; jmarois@metis.org; Rob.Lonson@gov.ab.ca; Andy.Brown@gov.ab.ca; csmigerowsky@smokylakecounty.ab.ca
Cc: Rohr, Gabe; Kayne, Glen M; Brown, Adam J (Sherwood Park)
Subject: RE: Hwy 855 / Metis Crossing Intersection Treatment

Gord

Can you change to Wednesday (Nov. 23) ? I can't make it. I have another meeting to attend.

Wing

From: Holman, Gord [mailto:gord.holman@amec.com]
Sent: Monday, November 14, 2005 2:53 PM
To: wing.choy@gov.ab.ca; jmarois@metis.org; rob.lonson@gov.ab.ca; andy.brown@gov.ab.ca; csmigerowsky@smokylakecounty.ab.ca
Cc: Rohr, Gabe; Kayne, Glen M; Brown, Adam J (Sherwood Park)
Subject: Hwy 855 / Metis Crossing Intersection Treatment
Importance: High

As discussed with Wing Choy, we are proposing to have a meeting next week to discuss the Traffic Impact Assessment for the above noted intersection we sent to all parties on July 29, 2005.

Would next Tuesday afternoon (November 22, 2005) at 1:30pm at our office in Sherwood Park be all right for everyone to attend.

Please let me know as soon as possible.

Thanks

Gordon J. Holman, C.E.T.
Project Director
AMEC
Infrastructure Unit
Sherwood Park, AB
Direct Line +1 780 416 8727
Phone +1 780 464 4550
Fax +1 780 464 4533
gord.holman@amec.com

29 July 2005
File: TRAFFIC IMPACT RECOMMENDATIONS.DOC
Project No.: EDT050055

Wing Choy
2nd fl Provincial Building
4709 – 44 Avenue
Stony Plain T7Z 1N4

Dear Wing,

Re : Hwy 855 /Metis Crossing Intersection
Traffic Impact Assessment

AMEC has been commissioned to conduct a Traffic Impact Assessment at the Hwy 855 / Victoria Trail Intersection where the Métis Crossing project is to be located.

Information contained in this assessment is based on existing mosaics, correspondence with Juanita Marois (Métis Crossing), along with measurements and observations obtained by AMEC Infrastructure Limited (AMEC) during a site inspection

An intersection design system (IDS) analysis was performed using the projected traffic volume given to us by Juanita Marois and traffic volume records obtained from AIT (Alberta Infrastructure and Transportation). Results indicate that the intersection requires Type 3b treatment. The analysis, photos, projected traffic volumes and a plan of a typical Type 3b treatment are attached for your records.

Issues:

- The distance from the north end of the bridge to the intersection is approximately 170m and is equal to the distance required to construct the southwest taper of the intersection. There appears to be no visible obstruction for the remaining three tapers.
- The existing 4 legged intersection is slightly offset with the west leg 4m further south than the right leg.
- Powerpoles on the north side of Victoria Trail appear to be within the existing road right of way.
- Existing guardrail adjacent to the highway extends north from the bridge abutment to the access road and around the flare.
- Site distance in both directions appears to be adequate.
- It assumes that there will be no development to the west of Hwy 855 and only local traffic will be using the west leg.
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Recommendations:

- Type 3b intersection treatment.
- Have review meeting with AIT, Métis Crossing and Smoky Lake County.
- After agreement is reached, proceed to preliminary survey and design.
- Complete field survey and preliminary design for review with AIT, Métis Crossing and Smoky Lake County.

Please review and if you have any questions please do not hesitate to call me.

Regards,

Adam Brown

Adam Brown, EIT
Project Engineer

c: Gabe Rohr, AMEC Infrastructure Limited
Hal Cook, AMEC Infrastructure Limited
Juanita Marois, Métis Crossing
Cary Smigerowsky, Smoky Lake County

Gord Holman

From: Marois, Juanita [jmarois@metis.org]
Sent: Wednesday, June 08, 2005 6:45 PM
To: Gord Holman
Subject: RE: Metis Crossing

Hello Gordon,

I'm not sure that I have all the information that you ask for in the format requested, but let me provide what I have:

- Full development of Metis Crossing is expected in 2008.
- Yearly attendence is estimated to be 80,000 - 100,000. Of this total
  - 15,000 students (375 bus loads) majority in May, June, September, October
  - 3,500 tour participants (100 coach loads) majority between May and October
  - 2,400 RVs
  - balance will come by private automobile. Research suggests approximately 30% will be empty nesters (2 people per vehicle), 45% will be families.
- Off season and shoulder season will host training programs and other events, but maximum visitation will occur between May and September.

Hope this helps,
Juanita

-----Original Message-----
From: Gord Holman [mailto:gord.holman@amec.com]
Sent: Fri 6/3/2005 9:06 AM
To: Marois, Juanita
Cc:
Subject: Metis Crossing

As per our telephone conversation, we are looking for projected traffic counts to and from the development in order to complete a Traffic Impact Assessment for the intersection of Victoria Trail and Hwy 855.

We would require numbers of vehicle trips, as well as type of vehicles, for visitors, employees, service and maintenance vehicles.

Please call if you have any questions.

Gordon J. Holman, C.E.T.
Project Director
AMEC
Infrastructure Unit
Sherwood Park, AB
Direct Line +1 780 416 8727
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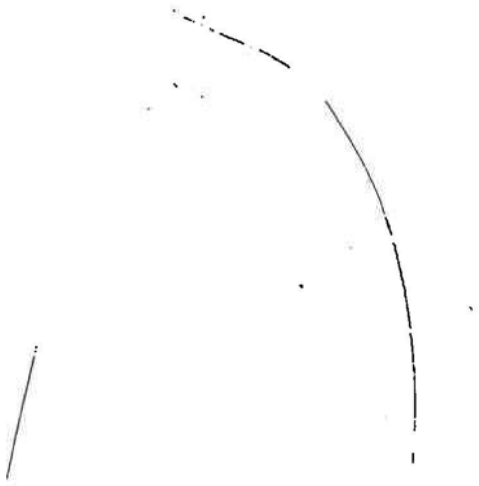
gord.holman@amec.com



INTERSECTION OF HWY 855 AND VICTORIA TRAIL

File: METIS CROSSING

Date: 07/18/2005

Intersection Design System (IDS) ver 1.01
Final Report

This design/evaluation was prepared by: TAJ
Reason for the analysis: Development permit request.

Design Characteristics Considered: Functional, geometric and 'other'.

Intersection Name: HW855
Intersection Plan Number: TRY 2
Location on Main Road (km): 11+86
Legal Land Description: SW13-58-17-W4

Since the design volume on the intersecting roadway is greater than the design volume on the main roadway, a review of the traffic control scheme should be undertaken. Contact the Roadway Engineering Branch (Traffic Engineering) at 427 - 4219.

MAIN ROAD:

- Name: HW855
- Design Classification: RCU-208.0-110
- AADT: 0 ASDT: 5000 AWDT: 0
- Traffic Volume Information from: 2004
- Volume Used in Design: 5000 v.p.d. (ASDT)
- Design Period: 20 year(s)
- Annual Growth Rate: 2.5 % (actual)
- Future Design Volume: 7625 v.p.d. (ASDT)
- 'K' Factor: 15 % (actual)
- Future Design Hourly Volume: 1144 v.p.h.
- Design Speed: 110 km/h
- Posted Speed: 100 km/h

INTERSECTING ROAD:

- Name: VICTORIA TRAIL
- Design Classification: RLU-208G-60
- AADT: 0 ASDT: 5000 AWDT: 0
- Traffic Volume Information from: 2004
- Volume Used in Design: 5000 v.p.d. (ASDT)
- Design Period: 20 year(s)
- Annual Growth Rate: 2.5 % (actual)
- Future Design Volume: 7625. v.p.d. (ASDT)
- 'K' Factor: 15 % (actual)
- Future Design Hourly Volume: 1144 v.p.h.

TWINNING REQUIREMENT met before design period finished? n/a
If yes, and details required:
- Functional Classification:
- Percent Passing Zones: % ()
- Twinning Required at: v.p.d.
- Year Twinning Volume Met:

INTERSECTION TYPE: four-legged
Main Roadway Orientation: north-south
Intersecting Roadway Orientation: east-west

INTERSECTION OF HWY 855 AND VICTORIA TRAIL

TURNING MOVEMENT INFORMATION:

2004 ASDT traffic volume on the main road:

	Daily Vol. (v.p.d.)	Design Vol. (v.p.d.)	Design Hour Vol. (v.p.h.)
From the north to the south	600	915	137
From the north to the east	150	229	34
From the north to the west	5	8	1
From the south to the north	350	534	80
From the south to the east	30	46	7
From the south to the west	10	15	2

2004 ASDT traffic volume on the intersecting road:

	Daily Vol. (v.p.d.)	Design Vol. (v.p.d.)	Design Hour Vol. (v.p.h.)
From the east to the north	150	229	34
From the east to the south	30	46	7
From the east to the west	5	8	1
From the west to the north	5	8	1
From the west to the south	5	8	1
From the west to the east	5	8	1

Percent of left-turning vehicles in the advancing stream:

- from the north: 19.9 %
- from the south: 2.6 %

North/South Split: 66 / 34
South/North Split: 34 / 66

For traffic from the North:
Advancing Volume: 173 v.p.h.
Opposing Volume: 89 v.p.h.

For traffic from the South:
Advancing Volume: 89 v.p.h.
Opposing Volume: 173 v.p.h.

LEFT-TURN STORAGE LANE REQUIREMENTS:

Because the advancing volume from the north (173) is less than the allowable advancing volume from the north (210) but greater than, or equal to, the "70% line" (141) a type 3 treatment is required on the north side of the intersection.

Because the advancing volume from the south (89) is less than the "70% line" (306) a type 2 treatment is required on the south side of the intersection.

RIGHT-TURN LANE REQUIREMENTS:

A right turn lane, for vehicles heading from north to west, is not required.

A right turn lane, for vehicles heading from south to east, is not required.

INTERSECTION LAYOUT:

Based on the above information:

INTERSECTION OF HWY 855 AND VICTORIA TRAIL

This intersection requires a treatment similar to Type [redacted] as indicated on Dwg. No. DEB-FIG C-28 (CB6-2.3C28B for design designation RAU-211.8-110 or CB6-2.3C28D for design designation RAU-209.0-110).

Since a left-turn lane is required for traffic from the north, the orientation of the intersection is 270 degrees clockwise from that of the drawing.

One leg of intersecting road has different volume than the other? yes
If yes - Volume Used in Design: 50. v.p.d. (ASDT)
- Future Design Volume: 76 v.p.d. (ASDT)
- Future Des. Hourly Vol.: 11 v.p.h.

DIMENSIONS for the type of intersection treatment mentioned above:

The following dimensions are the requirements for the finished surface pavement widths at this intersection. Additional subgrade width must be provided to allow for the basecourse and pavement depth.

Design classification of the main roadway:	RCU-208.0-110
Lane width (m):	3.5
Bypass lane width (m):	3.5
Auxilliary lane width (m):	3.50
Shoulder width for roadway (m):	0.5
Shoulder width at intersection, W (m):	0.5
Design speed of the main roadway (km/h):	110
Prior to the intersecting road	
- Right-turn taper length (m):	87.50
- Right-turn taper ratio:	25:1
Past the intersecting road	
- Recovery taper length (m):	87.50
- Recovery taper ratio:	25:1

ADDITIONAL FUNCTIONAL CHARACTERISTICS:

Intersection considered to be collision prone?	no
Need for access within vicinity of intersection?	no
Access can be physically accomodated?	n/a
Any future development which could significantly impact the traffic volume at this intersection?	no
Any proposed improvements to other roadways which might impact the traffic movement at this intersection?	no

GEOMETRIC CHARACTERISTICS:

Intersection Type:	four-legged
Main Road Orientation:	north-south
Grade at Intersection	
- North to South:	2 %
- South to North:	2 %
Intersecting Road Orientation:	east-west
Grade at Intersection	
- East to West:	2 %
- West to East:	2 %

Decision Sight Distance:

INTERSECTION OF HWY 855 AND VICTORIA TRAIL

Because a Type IV or V treatment is not required for this intersection, determination of the available decision sight distance is not necessary.

Intersection Sight Distance:

Design Vehicle:	WB-15
Intersection on horiz. curve:	NO
- superelevation rate (%):	N/A

	Available (m)	Required (m)	Status
North Leg:	600	430	ACCEPTABLE
South Leg:	600	430	ACCEPTABLE

OTHER CHARACTERISTICS:

Utility relocation required?	no
Additional right-of-way to be purchased?	no
Cost of additional right-of-way:	$ n/a
Existing illumination?	no
Existing traffic signals?	no

IDS is not designed as, nor does it establish, a legal standard. IDS is not intended to be used as a substitute for sound, professional judgement.

Approved by: Adam Brown

Date: July 18, 2005

ALBERTA HIGHWAYS 1 TO 986
TRAFFIC VOLUME, VEHICLE CLASSIFICATION, TRAVEL and ESAL STATISTICS REPORT
2004

Alberta Infrastructure and Transportation
Program Management Branch
Highway Asset Management Section

Produced: 15-Feb-2005 By CornerStone Solutions Inc. Updated 08-Mar-2005 By P. Kilburn P.Eng.

Hwy	CS	TCS	Muni	From	To	Length	Volume		Classifications						Travel MVKM		ESAL / Day / Dir		
						In Km	WAADT	WASDT	%PV	%RV	%BU	%SU	%TT	%CM	Annual	Summer	SU	TC	Total
854				**N OF 53 E OF DONALDA**	**S OF 626 NE OF RYLEY**	**89.412**	**247**	**268**	**82.4**	**1.4**	**1.0**	**8.6**	**6.6**	**16.2**	**8.1**	**3.7**	**9.4**	**16.9**	**26.3**
855	02	04	SA#2	N OF 9 S OF WATTS	E OF 589 NW OF ENDIANG	38.494	180	200	85.4	2.1	3.7	4.0	4.8	12.5	2.5	1.2	3.2	9.0	12.2
855	02			N OF 9 S OF WATTS	E OF 589 NW OF ENDIANG	38.494	180	200	85.4	2.1	3.7	4.0	4.8	12.5	2.5	1.2	3.2	9.0	12.2
855	04	04	Pnte	N OF 589 NW OF ENDIANG	S OF 12 SE OF HALKIRK EJ	34.289	190	210	67.7	3.4	0.0	7.2	21.7	28.9	2.4	1.1	6.0	42.7	48.7
855	04			N OF 589 NW OF ENDIANG	S OF 12 SE OF HALKIRK EJ	34.289	190	210	67.7	3.4	0.0	7.2	21.7	28.9	2.4	1.1	6.0	42.7	48.7
855	06	04	Pnte	N OF 12 W OF HALKIRK WJ	S OF 601 NW OF HALKIRK	17.327	400	450	86.5	0.2	1.3	6.3	5.7	13.3	2.5	1.2	11.1	23.6	34.7
855	06	08	Flag	N OF 601 NW OF HALKIRK	S OF 53 W OF FORESTBURG EJ	16.793	340	390	80.9	2.1	0.7	6.3	10.0	17.0	2.1	1.0	9.4	35.2	44.6
855	06			N OF 12 W OF HALKIRK WJ	S OF 53 W OF FORESTBURG EJ	34.120	370	420	83.9	1.1	1.0	6.3	7.7	15.0	4.6	2.2	10.3	29.5	39.8
855	08	04	Flag	N OF 53 S OF HEISLER WJ	S OF 13 SE OF DAYSLAND EJ	31.106	680	730	86.4	1.4	0.0	7.4	4.8	12.2	7.7	3.5	22.2	33.8	56.0
855	08			N OF 53 S OF HEISLER WJ	S OF 13 SE OF DAYSLAND EJ	31.106	680	730	86.4	1.4	0.0	7.4	4.8	12.2	7.7	3.5	22.2	33.8	56.0
855	10	04	Flag	N OF 13 AT DAYSLAND WJ	S OF 26 S OF HOLDEN	17.541	380	410	83.5	3.2	0.5	6.0	6.8	13.3	2.4	1.1	10.0	26.8	36.8
855	10			N OF 13 AT DAYSLAND WJ	S OF 26 S OF HOLDEN	17.541	380	410	83.5	3.2	0.5	6.0	6.8	13.3	2.4	1.1	10.0	26.8	36.8
855	12	04	Beav	N OF 26 S OF HOLDEN	S OF 14 SW OF HOLDEN	23.651	360	390	82.0	4.8	1.4	5.3	6.5	13.2	3.1	1.4	8.4	24.3	32.7
855	12	08	Beav	N OF 14 SW OF HOLDEN	S OF 626 N OF HOLDEN EJ	15.255	270	280	78.4	2.5	5.0	7.8	6.3	19.1	1.5	0.7	9.3	17.6	26.9
855	12			N OF 26 S OF HOLDEN	S OF 626 N OF HOLDEN EJ	38.906	325	347	80.9	4.0	2.6	6.1	6.4	15.1	4.6	2.1	8.7	21.6	30.3
855	14	04	Lamo	N OF 626 NE OF RYLEY WJ	S OF 15 & 16 S OF MUNDARE	22.656	260	280	73.4	3.6	0.0	9.9	13.1	23.0	2.2	1.0	11.3	35.3	46.6
855	14			N OF 626 NE OF RYLEY WJ	S OF 15 & 16 S OF MUNDARE	22.656	260	280	73.4	3.6	0.0	9.9	13.1	23.0	2.2	1.0	11.3	35.3	46.6
855	16	04	lamo	JCT HWY 15	S OF 637 SE OF ZAWALE	20.497	1640	1790	83.9	5.2	0.8	4.8	5.3	10.9	12.3	5.6	34.7	90.1	124.8
855	16	08	Lamo	N OF 637 SE OF ZAWALE	S.C.L. OF ANDREW	11.843	640	730	88.1	4.9	2.5	1.3	3.2	7.0	2.7	1.3	3.7	21.2	24.9
855	16	12	Lamo	S.C.L. OF ANDREW	S OF 45 N OF ANDREW EJ	1.289	940	1080	87.3	3.2	0.1	4.9	4.5	9.5	0.4	0.2	20.3	43.8	64.1
855	16			JCT HWY 15	S OF 45 N OF ANDREW EJ	33.429	1265	1393	84.7	5.1	1.1	4.2	4.9	10.2	15.5	7.1	23.4	64.2	87.6
855	18	04	Lamo	N OF 45 S OF UKALTA WJ	S OF 28 N OF SMOKY LAKE	28.149	610	700	86.2	2.2	1.5	4.7	5.4	11.6	5.8	2.8	12.6	34.1	46.7
855	18			N OF 45 S OF UKALTA WJ	S OF 28 N OF SMOKY LAKE	28.149	610	700	86.2	2.2	1.5	4.7	5.4	11.6	5.8	2.8	12.6	34.1	46.7
855	20	04	SmkL	N OF 28 N OF SMOKY LAKE	COUNTY 13 BOUNDARY	23.154	310	360	83.2	4.7	0.2	6.0	5.9	12.1	2.6	1.3	8.2	19.0	27.2
855	20			N OF 28 N OF SMOKY LAKE	COUNTY 13 BOUNDARY	23.154	310	360	83.2	4.7	0.2	6.0	5.9	12.1	2.6	1.3	8.2	19.0	27.2
855	22	04	SmkL	COUNTY 13 BOUNDARY	S OF 663 E OF CASLAN	36.540	220	260	85.5	0.7	4.7	6.2	2.9	13.8	2.9	1.5	6.0	6.6	12.6
855	22			COUNTY 13 BOUNDARY	S OF 663 E OF CASLAN	36.540	220	260	85.5	0.7	4.7	6.2	2.9	13.8	2.9	1.5	6.0	6.6	12.6
855	24	04	Atha	N OF 663 E OF CASLAN	S OF 55 & 63 W OF ATMORE NJ	27.782	100	110	73.4	1.4	2.1	6.3	16.8	25.2	1.0	0.5	2.8	17.4	20.2
855	24			N OF 663 E OF CASLAN	S OF 55 & 63 W OF ATMORE NJ	27.782	100	110	73.4	1.4	2.1	6.3	16.8	25.2	1.0	0.5	2.8	17.4	20.2
855				**N OF 9 S OF WATTS**	**S OF 55 & 63 W OF ATMORE NJ**	**364.166**	**408**	**452**	**83.3**	**3.1**	**1.3**	**5.7**	**6.6**	**13.6**	**54.4**	**25.2**	**10.2**	**27.9**	**38.1**
856	02	04	Flag	N OF 53 AT FORESTBURG	N.C.L. OF FORESTBURG	0.549	1410	1560	84.4	3.0	0.1	3.8	8.7	12.6	0.3	0.1	23.6	127.1	150.7
856	02	08	Flag	N.C.L. OF FORESTBURG	S OF 13 S OF STROME	25.491	170	180	82.4	0.8	0.0	13.9	2.9	16.8	1.6	0.7	10.4	5.1	15.5
856	02			N OF 53 AT FORESTBURG	S OF 13 S OF STROME	26.040	196	209	82.7	1.1	0.0	12.4	3.8	16.2	1.9	0.8	10.7	7.7	18.4
856				**N OF 53 AT FORESTBURG**	**S OF 13 S OF STROME**	**26.040**	**196**	**209**	**82.7**	**1.1**	**0.0**	**12.4**	**3.8**	**16.2**	**1.9**	**0.8**	**10.7**	**7.7**	**18.4**

Picture 1 : Looking South from the crest of hill.

Picture 2 : South sight distance from intersection.

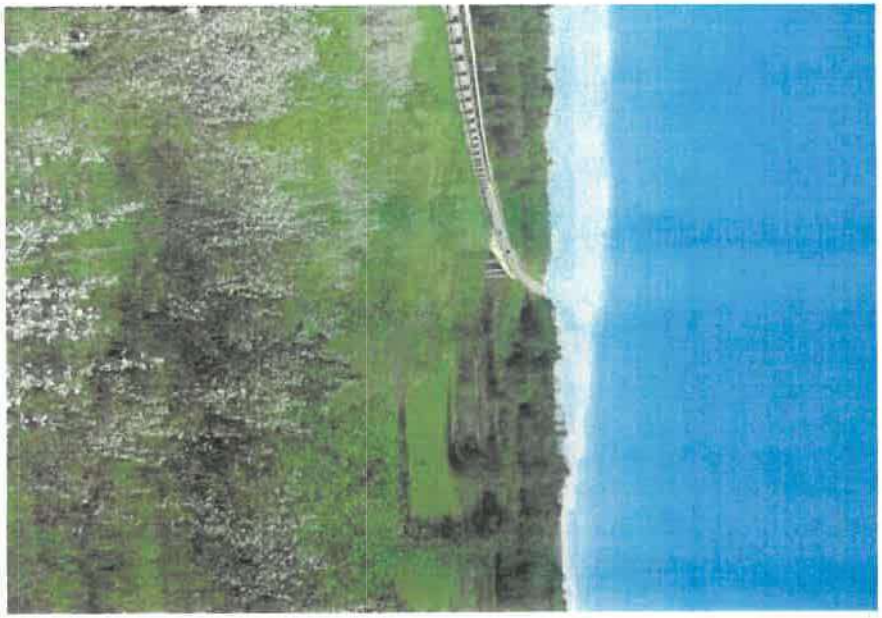
Picture 3 : View of East Leg.

Picture 4 : View of West Leg.

Picture 5 : View South, guardrail.

Picture 6 : North sight distance from intersection.

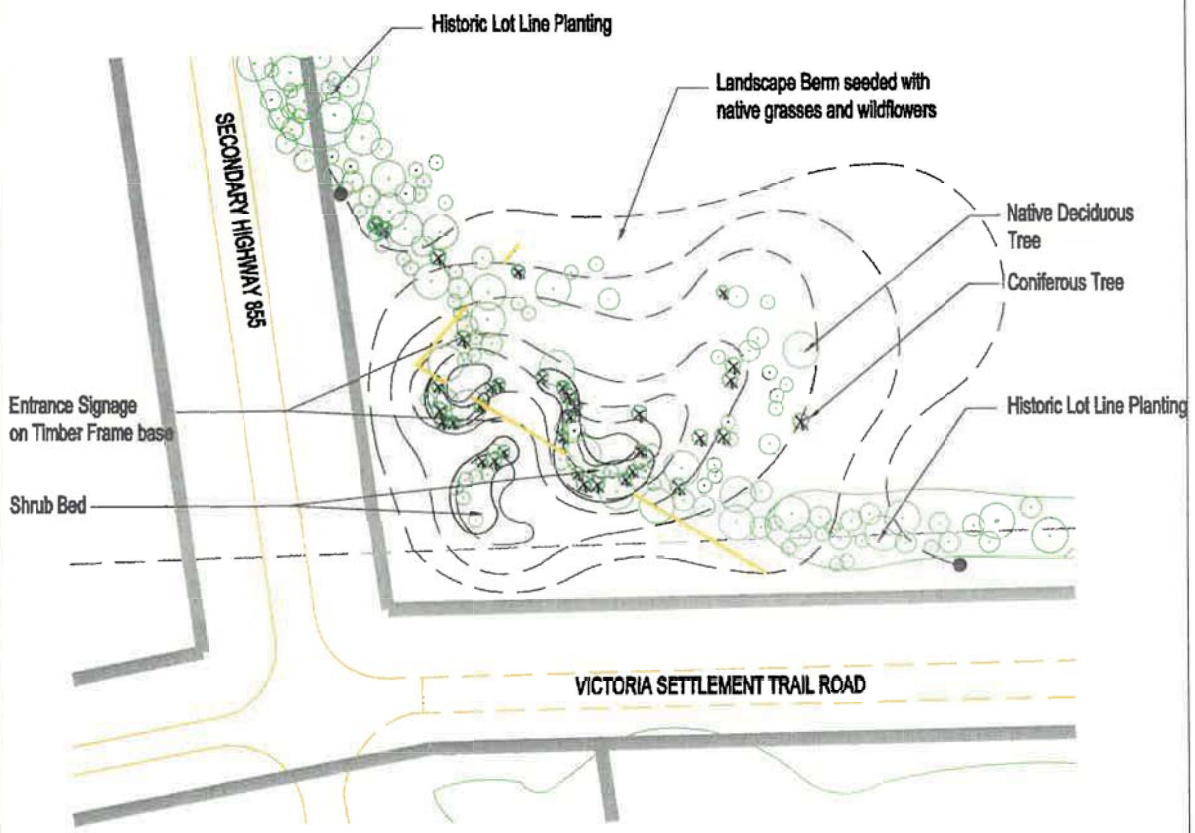
Picture 7 : Looking West at intersection. Guardrail wraps around flare.



Picture 8 : View South of the sideslope.

Picture 9 : Powerpoles running East-West

Picture 10 : View South at sideslope.



ENTRANCE SIGNAGE

N

SCALE : 100

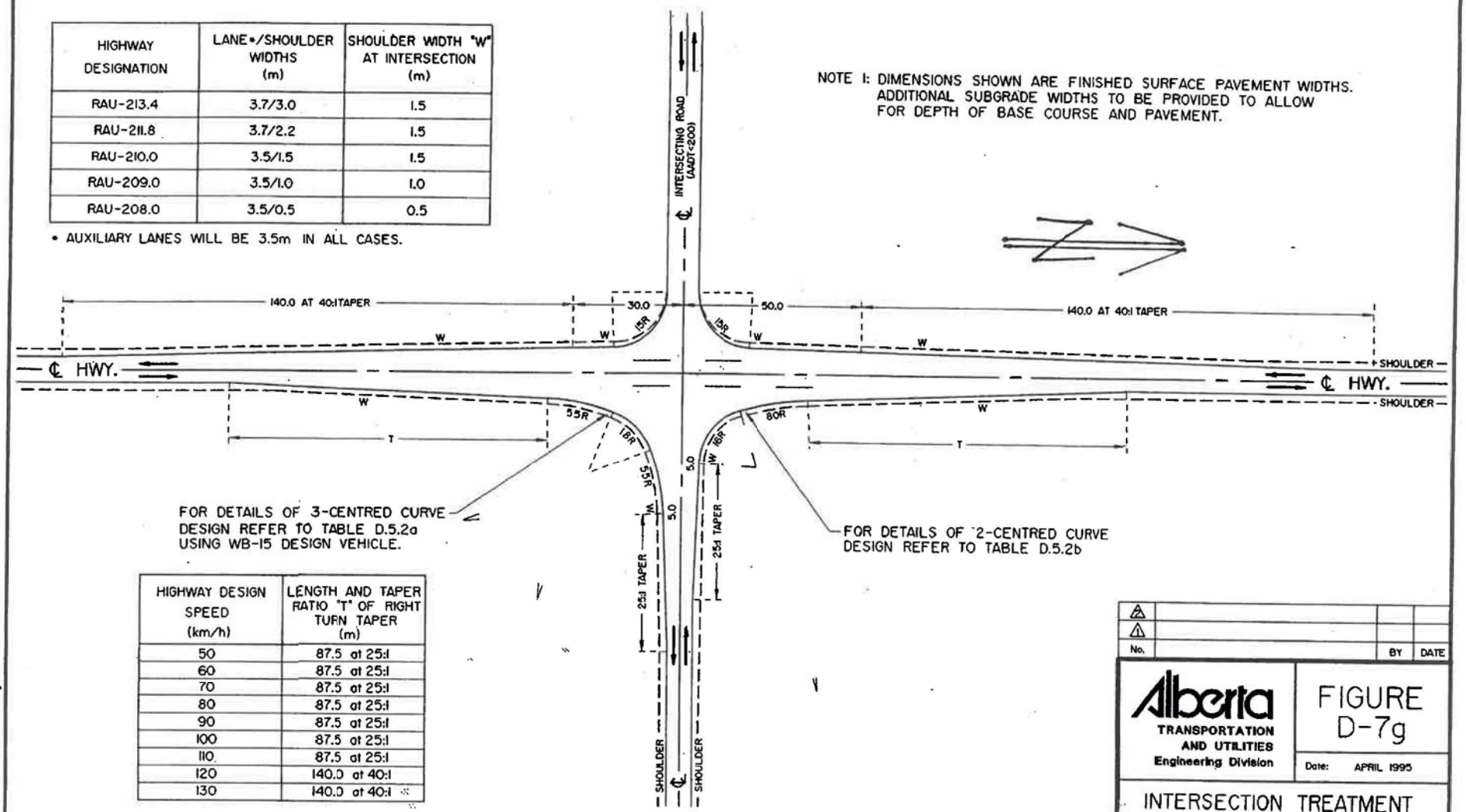
PROPOSED PLAN ENLARGEMENTS

MÉTIS NATION OF ALBERTA
RIVER VIEW FARM
VICTORIA LANDING

HIGHWAY DESIGNATION	LANE*/SHOULDER WIDTHS (m)	SHOULDER WIDTH "W" AT INTERSECTION (m)
RAU-213.4	3.7/3.0	1.5
RAU-211.8	3.7/2.2	1.5
RAU-210.0	3.5/1.5	1.5
RAU-209.0	3.5/1.0	1.0
RAU-208.0	3.5/0.5	0.5

* AUXILIARY LANES WILL BE 3.5m IN ALL CASES.

NOTE 1: DIMENSIONS SHOWN ARE FINISHED SURFACE PAVEMENT WIDTHS. ADDITIONAL SUBGRADE WIDTHS TO BE PROVIDED TO ALLOW FOR DEPTH OF BASE COURSE AND PAVEMENT.



HIGHWAY DESIGN SPEED (km/h)	LENGTH AND TAPER RATIO "T" OF RIGHT TURN TAPER (m)
50	87.5 at 25:1
60	87.5 at 25:1
70	87.5 at 25:1
80	87.5 at 25:1
90	87.5 at 25:1
100	87.5 at 25:1
110	87.5 at 25:1
120	140.0 at 40:1
130	140.0 at 40:1

No.		BY	DATE
2			
1			

Alberta
TRANSPORTATION AND UTILITIES
Engineering Division

FIGURE D-7g

Date: APRIL 1995

INTERSECTION TREATMENT TYPE IIIb (TWO-LANE HIGHWAY)

Prepared By: Cgk	Checked By: B.K.	Scale: N.T.S.	PAGE D-125

Graphics File: DE1(200,221)cb623m66.dgn

Jordan Ruegg

From: Andy Russell [redacted]
Sent: June 20, 2024 5:11 PM
To: Jordan Ruegg
Cc: Lewis Semashkewich
Subject: MNA-001 Smoky Lake Recovery Center

Hi Jorden
I am hoping this comes in quick enough today to meet your deadline.

- The numbers below were calculated using the staff required to operate, maintenance workers, supplies to operate and 4-6 visitors per month per resident.
- Kitchen supplies (Food and dry goods) will be once per week or less. The amount of dry and cold storage in this building reduces food delivery traffic.
- Medical, office supplies and general supplies will be no more than once per week.
- Miscellaneous or fast delivery items 2-3 times per month.

1. Private vehicles (2 people per vehicle) annual total 14,000 per year.
2. Water and sewage vehicles, annual total 200 per year.
3. Groceries and general supply vehicles, annual total 110-135 per year.
4. Handicap bus or multi passenger transportation for families to visit residents, annual total 35-60 per year.

- Total annual vehicle traffic using the maximum number calculates to 14,395 with a daily total of 40 vehicles per day.

Hopefully this is what the council will be happy with.

Sincerely

Andy Russell
[redacted]

RE: Metis Crossing recovery

Terry Smith [redacted]
Wed 6/5/2024 1:58 PM
To:Abdulla Elmikkawi [redacted]
Cc:Lewis Semashkewi [redacted]
Pond size to be verified once we see arch plans from Mike showing fire rated compartments and/or we have input on maximum sprinkler zone size.

For now use 50,000 US gallons as an approx size. Pond surface is 2500sf. Could be (35 by 70) and 3 ft deep of usable water....or any other size with volume of 6682 cubic ft. Understand pond has to be 6ft deeper to allow for ice on top and silt at bottom.

Adjacent pond in fenced area show a 6ft by 12ft diesel fire pump...min 2 meters from edge of pond.

Septic and domestic water tanks each need to be 4237 cu ft or about 120,000liters for a week of storage. If using fiberglass or precast tanks will need to connect appropriate size tanks together.

Finally I see the power transformer is located far away from building. Moving it closer and more central to mail electrical room is cost efficient. Needs to be within 10 ft of driving or paved surface.

Trusting this helps for next draft of site plan.

Cheers
Terry Smith

Sent from my Galaxy

-------- Original message --------
From: Abdulla Elmikkawi [redacted]
Date: 2024-06-05 12:32 p.m. (GMT-07:00)
To: Andy Russell [redacted]
Cc: Lewis Semash [redacted]
Subject: RE: Metis Crossing recovery

Hi

Updated MNA_ Smoky Lake site plan with proposed fence around the pond

Let me know if you have any questions

Regards

From: Andy Russell [redacted]
Sent: Wednesday, June 5, 2024 12:12 PM
To: Terry Smith [redacted]
Cc: Lewis Semas [redacted]
Subject: Re: Metis Crossing recovery

Hi Terry

Lewis and I had a brief conversation on the site last week . He showed me a drawing with locations for all the items below. I talked to my team and Abdulla is going to redraw the Site plan showing Lewis's idea.

1. On-Site sewage treatment as a future proposed location unless directed to remove from plan.
2. Potable water (Cistern) proposed location
3. Sewage storage tank proposed location
4. Garbage enclosure proposed location
5. Required paved area to access the above items
6. The Fire pond will not move unless required to
7. I am having Abdulla as per the conversation draw a fence around the fire pond. (only if required)

Jordan Ruegg

From: Andy Russell [redacted]
Sent: June 19, 2024 1:48 PM
To: Jordan Ruegg
Cc: John Contessa
Subject: MNA-001 Smoky Lake Recovery Center
Attachments: Fire Pond And Sewage Engineer Recommendation.pdf; MNA-001 Architecturual DP Plan.pdf; MNA-001 DP Site Plan.pdf

Hi Jorden

I called Metros who is contracted to service Metis Crossing and the recovery center.

#1.

- Current Primary dump site used for Metis Crossing is Warspite.
- Once the recovery center comes online Metros will add Bellis for surplus volume as needed
- We have volume calculations per fixture from our engineer using the national building code - 7.6 Litres per second
- We have volume calculations per fixture from our engineer using Alberta private sewage systems - Standard practice 2021 at

1. 1.94 Litres per second.

#2

- The existing Buffalo fence will be used for the course of construction. During the final design phase our team, with input from customer and county approval, will come up with an attractive fence for the entrance portion running North - South.

#3

- DP Architectual drawings attached reflect the building colors for your review.

#4

- Attached Site plan identifies road and parking lot, our team is recommending gravel surface for road and parking lot until which time the county paves road to the center entrance. Both the Customer and our Team are concerned with the amount of cleaning required to maintain the asphalt from the gravel road to entrance on muddy days

Sincerely

Andy Russell

[redacted]

We Create Spaces That Inspire